SERV. 11261

AV-28WX1EP
AV-32WX1EP

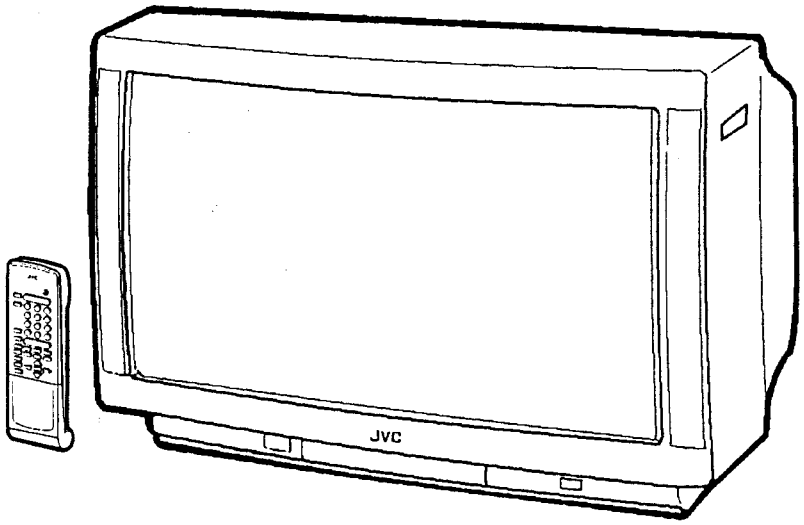
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-28WX1EP
AV-32WX1EP

BASIC CHASSIS
JD



[AV-28WX1EP]

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No.51108
Aug.1996

OPERATING INSTRUCTIONS

JVC

COLOUR TELEVISION

AV-28WX1EP
AV-32WX1EP

INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

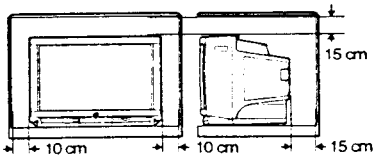
WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
   When installing this television, distance recommendations must be maintained between the floor and wall, as well as installment in a tightly enclosed area or piece of furniture. Adhere to the minimum distance guidelines shown for safe operation.



4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet.

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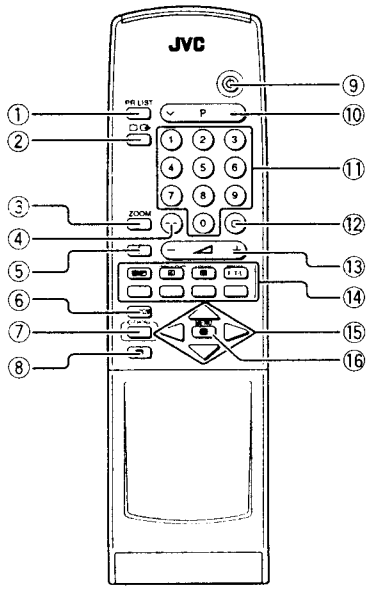
(No.511 08) 1-1

Locations of remote control buttons

OUTSIDE BUTTONS



① PR. LIST button	p.18
② TV/Video button	p. 20
③ ZOOM button	p. 25
④ -- button	p.18
⑤ Mute button	p. 21
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⑨ Standby button	p. 6,18
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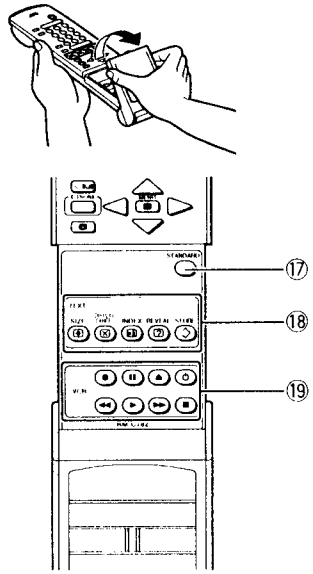
⑪ Number buttons	p.18,28
⑫ Display button	p. 23
⑬ Volume –/+ button	p.19
⑭ Teletext buttons	p. 28
⑮ ◄/►/▼/▲ button	
⑯ OK button	

INSIDE BUTTONS

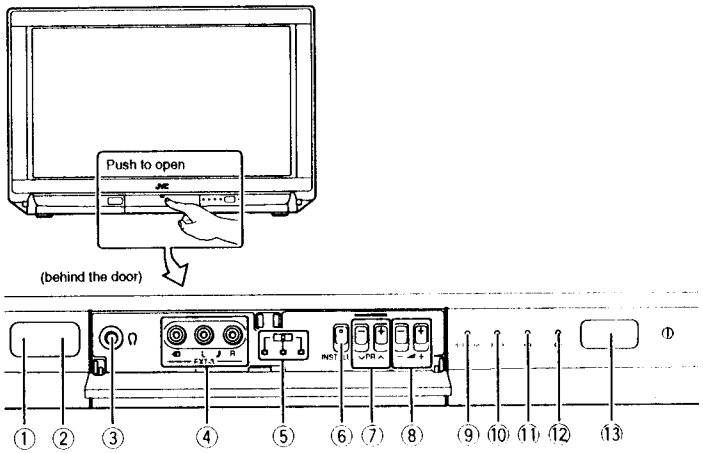
How to open the cover.



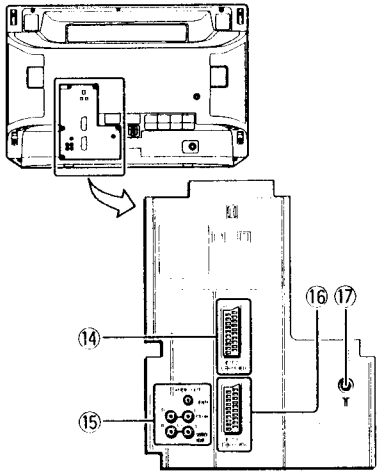
⑰ STANDARD button	p. 22
⑱ Teletext buttons	p. 28
⑲ VCR control buttons	p. 20

Locations of TV buttons and parts

FRONT PANEL



REAR PANEL

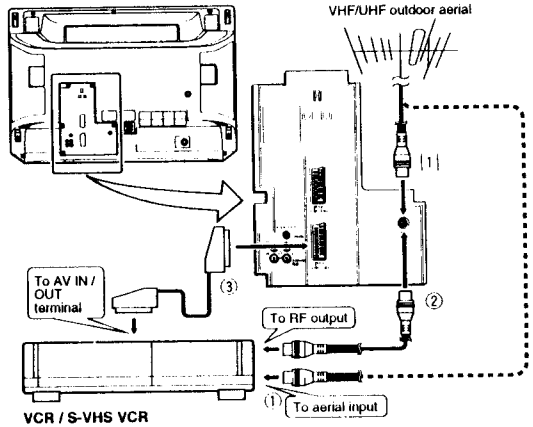


① Remote control sensor	
② ECO sensor	
③ Headphone jack (mini jack)	p. 5
④ EXT-3 terminals	p. 4, 14,16, 20
⑤ Earth magnetism correction switch (The AV-28WX1EP does not have this switch.)	p.17
⑥ INSTALL button	p. 7, 8, 10
⑦ PR Channel ∨/∧ buttons	p.19
⑧ Volume –/+ buttons	p.19
⑨ 3D-PHONIC lamp	p. 26
⑩ ECO lamp	p. 24
⑪ SLEEP TIMER lamp	p. 23
⑫ Power lamp	p. 6,18
⑬ Main power button	p. 6,18
⑭ EXT-2 terminal	p. 4,14, 16, 20
⑮ AUDIO OUT terminals	p. 30
⑯ EXT-1 terminal	p. 4,14,16, 20
⑰ Aerial socket	p. 4

PREPARATION

1. Connecting the aerial and VCR

If not connecting a VCR, do (1) only.
If connecting a VCR, proceed (1) → (2) → (3).



Notes:
- For further details, refer to manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- You can view video from a VCR without doing (3). For details, refer to the manual provided with your VCR.

2. Connecting other external devices

Conditions:
- This TV set has external device connectors, EXT-1 to EXT-3, to which you can connect a VCR. However, there are some differences in functions among them. Consult the following table before making connections.

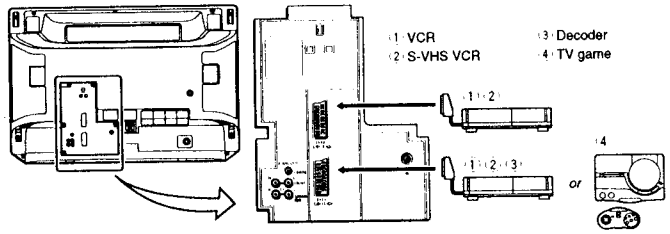
	EXT-1	EXT-2	EXT-3 (front)
VIDEO IN	√*1	√*1	√
VIDEO OUT	√*2	√*3	–
S VIDEO IN	√*1	√*1	–
S VIDEO OUT	–	–	–
RGB IN	√	–	–
AUDIO L IN	√	√	√
AUDIO R IN	√	√	√
AUDIO L OUT	√*2	√*3	–
AUDIO R OUT	√*2	√*3	–
Others	• Automatic detection and switching of input mode • Automatic detection and switching of ZOOM mode.		

*1 Select VIDEO or S-VIDEO mode from the EXT SETTING menu. For details, see page 14 "Making external device settings."
*2 Only the TV broadcast is output.
*3 TV broadcasts or inputs from EXT-1 or 3 can be output. For details, see page 16 "Select EXT-2 output." However, when you select EXT-2, no signals are output.

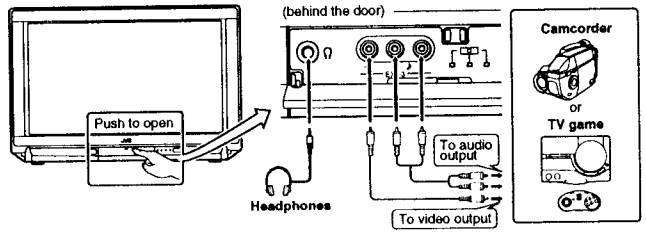
- Use headphones with a stereo mini jack (dia. 3.5 mm). When using headphones, the speakers will not output sound. Although, the signal from the AUDIO OUT terminals will not cut off when headphones are connected.
- For further details, refer to manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- When connecting a monaural external device to the EXT-3 terminals, use the L jack.
- For details on how to connect the AUDIO OUT terminals on your TV and external devices such as the audio amplifiers or speakers, see page 30.

(No.51108) 1-3

If connecting to the terminals on the rear panel

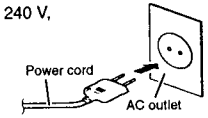


If connecting to the terminals on the front panel



3. Connecting the power cord

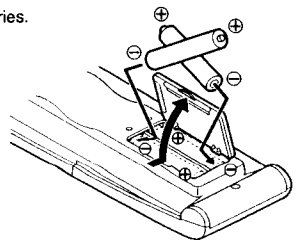
Insert the power plug into an AC outlet (AC 220 – 240 V, 50 Hz).



4. Inserting batteries into your remote control

Condition:
- Use two AAA/R03 dry cell batteries.

Insert two batteries, observing the ⊕ and ⊖ polarities, inserting the ⊖ end first.



CAUTION:
- Follow the cautions printed on the batteries.

Notes:
- Battery life is approx. six months to one year, depending on frequency of use.
- If the remote control operates erratically, replace the batteries.
- We recommend that you use the supplied batteries initially and replace them as soon as operation becomes erratic. The supplied batteries are for testing, not for regular use.

5. Turning the power on

1. Press the Main Power button on the TV to turn the main power on.

The POWER lamp lights red.
- The TV enters Standby mode.

If the power lamp has automatically turned from red to green
Skip the turn on operations in step two, the TV has automatically turned on.

2. Press the Standby button.

The POWER lamp changes from red to green.

Note:
- You can also press the PR channel ∨/∧ button, a number button or the TV/Video button to turn the power on.

The first time you turn on your TV

The TV goes into initial settings mode and the JVC logo appears. Follow the steps below. The necessary settings to watch the TV can be completed quickly and easily by following the instructions on page 7 and 8.
- Once you have completed all the initial settings you cannot return to the settings mode again.

Notes:
- If you turn off the TV or exit the menu while you are performing the initial settings mode, you will not be able to return to the settings mode.
- See pages 7 and 8 for the setting details respectively.

1. Press any button on the remote control.

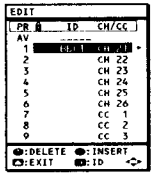
The LANGUAGE menu appears.

2. Perform steps 3 and 4, "Selecting the on-screen language" on page 7.

Complete the on screen language settings and the COUNTRY menu will then appear.

3. Perform steps 3 and 4, "Automatic allocation" on page 8.

The PR channels are automatically set and the EDIT menu is displayed.
- If you want to edit PR channels, proceed to step 3 on page 10.



● The procedure is complete.
Press the Exit button repeatedly to exit the menu.

To turn the power off

1. Press the Standby button.

The POWER lamp changes from green to red.
- The TV enters Standby mode.

2. Press the Main Power button on the TV to turn the main power off.

The POWER lamp goes out.

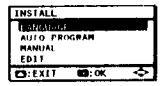
Note:
- To save energy, we recommend that you turn the main power off if you do not plan to use your TV for a long time.

6. Selecting the on-screen language

You can select one of ten languages for the on-screen display. In this manual, on-screen descriptions are given in English. Select English.

1. Press INSTALL button on the TV. (Example)

The INSTALL menu appears.



Note:
- You can also display the INSTALL menu by selecting INSTALL in the MENU and pressing (OK) button.

2. Press (OK) button. (Example)

The LANGUAGE menu appears.

3. Press ▼/▲ button to select ENGLISH.

4. Press (OK) button.

The LANGUAGE menu disappears.

7. Allocating stations to PR channels

To view a TV programme, you must first allocate stations to PR channels. You can allocate up to 100 stations to PR channels PR 1 thru PR99 plus PR 0 (AV) on this TV. There are two ways to allocate stations to PR channels, automatic and manual. After you have allocated stations to PR channels, you can change the stations again. For details, see page 10.

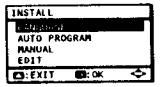
Automatic allocation

Automatically allocates receivable stations to PR channels. When the TV receives a signal describing the station's name, it allocates those stations, station IDs, and registers then as they were preset at the JVC factory.

1. Press INSTALL button on the TV.

INSTALL

The INSTALL menu appears.



Note:
- You can also display the INSTALL menu by selecting INSTALL in the MENU and pressing OK button.

2. Press ▼/▲ button to select AUTO PROGRAM, and press OK button.

▽/△ ⇨ MENU/OK

The COUNTRY menu appears.

3. Press ▼/▲/◀/▶ button to select your country and press OK button.

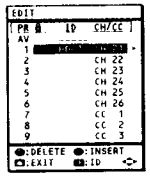
▽/△/◁/▷ ⇨ MENU/OK

The AUTO PROGRAM menu appears.

Note:
- If you make a mistake when selecting your country, or do not want to use the Automatic allocation function, select CANCEL, and then press OK button to return to the INSTALL menu.

4. Press OK button.

MENU/OK



The PR channel is automatically set and the EDIT menu is displayed.
- If you want to edit PR channels, proceed to step 3 on page 10.

Notes:
- Automatic allocation does not allocate a station to PR channel PR 0 (AV). Use manual allocation or editing to allocate a station to PR channel PR 0 (AV).
- If a station you want to view is not allocated to a PR channel, perform Manual allocation.

● The procedure is complete.
Press the Exit button repeatedly to exit the menu.

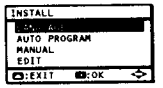
Manual allocation

Condition:
- To manually allocate French stations to PR channels, you must set COUNTRY to FRANCE.
  If COUNTRY is set to any other country than FRANCE. Firstly perform "Automatic Allocation" steps 1 thru 3 and set COUNTRY to FRANCE. Next select CANCEL from AUTO PROGRAM menu then press OK button to return to the INSTALL menu. Then follow the operations from step 2 of "Manual allocation."

1. Press INSTALL button on the TV.

INSTALL

The INSTALL menu appears.

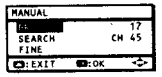


Note:
- You can also display the INSTALL menu by selecting INSTALL in the MENU and pressing OK button.

2. Press ▼/▲ button to select MANUAL, and press OK button.

▽/△ ⇨ MENU/OK

The MANUAL menu appears.



Note:
- PR channel number "00" appears on the screen as "AV". We recommend that you allocate this PR channel to a VCR connected to the aerial socket.

3. Press ▼/▲ button button to select PR, and press ◀/▶ button to select a PR channel number.

4. Press ▼/▲ button to select SEARCH, and press ◀/▶ button to search for a station.

▽/△ ⇨ ◁/▷

Scanning stops when the TV receives a broadcast. Press ◀/▶ button to search for another station, and keep searching until you see the station you want.
CH: Terrestrial broadcast stations
CC: Cable TV stations

If reception is poor:
Press ▼/▲ button to select FINE, and ◀/▶ button to fine-tune the PR channel.

If COUNTRY is set to FRANCE:
SYSTEM appears under FINE.
If the signal of a station is incorrectly received, press ▼/▲ button to select SYSTEM and press ◀/▶ button to change the broadcast system. Then repeat step 4.

Note:
- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel table on page 34.

5. Press OK button.

MENU/OK

The on-screen display shifts once, and the station is allocated to a PR channel.
- Repeat steps 3 thru 5 to allocate all desired stations to PR channels.

● This completes the procedure.
Press the Exit button repeatedly to exit the menu.

8. Editing PR channels

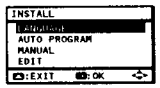
You can change PR channel settings by doing any of the following:
- You can delete an unwanted station from a PR channel,
- You can change the PR channel number of a station,
- You can add a new station to a PR channel, or
- You can add station IDs to PR channels.

To edit PR channels

1. Press INSTALL button on the TV.

INSTALL

The INSTALL menu appears.

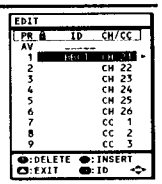


Note:
- You can also display the INSTALL menu by selecting INSTALL in the MENU and pressing OK button.

2. Press ▼/▲ button to select EDIT, and then press OK button.

▽/△ ⇨ MENU/OK

The EDIT menu appears.



3. Use any of the procedures described in the following pages to change the PR channel settings.

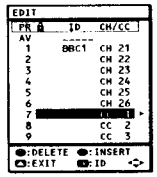
● This completes the procedure.
Press the Exit button repeatedly to exit the menu.

EXIT

To delete a station from a PR channel

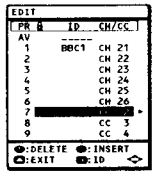
1. Press ▼/▲ button to select the station you want to delete.

▽/△



2. Press number button 1.

1

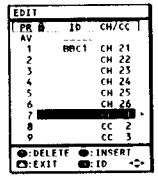


Note:
- Stations allocated to PR channels following the deleted PR channel number are shifted back by one to the preceding PR channel number.

To change the PR channel number of a station

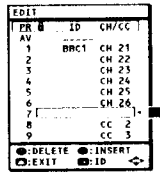
1. Press ▼/▲ button to select the station.

▽/△



2. Press ▶ button.

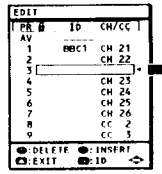
▷



3. Press ▼/▲ button to move the selected station to the desired PR channel number.

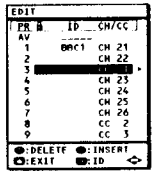
▽/△

- To cancel the operation, press the Exit button.



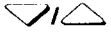
4. Press ◀ button.

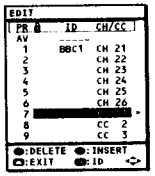
◁



To add a new station to a PR channel

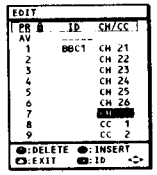
1. Press ▼/▲ button to select the row containing the PR channel number to which you want to add a station.





2. Press ◯ button repeatedly to display the enter number indicator.

◯ (--)
- **CH:** to add terrestrial broadcast stations
- **CC:** to add cable TV stations



If COUNTRY is set to FRANCE, select one of the following four items:

CH1: to add a system L terrestrial broadcast channel
CH2: to add a system B/G or I terrestrial broadcast channel
CC1: to add a system L cable TV channel
CC2: to add a system B/G or I cable TV channel

Note:
- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel table on page 34.

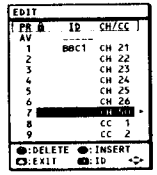
3. Press the number buttons to enter the channel number.

(1) (2) (3)
(4) (5) (6)
(7) (8) (9)
(0)

- To enter a one-digit channel number, enter the corresponding number and press OK button.
- To cancel the operation, press the Exit button.

4. Press OK button.

MENU OK

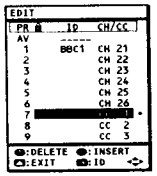


Note:
- When you add a station, the station preset to PR99 is deleted.

To add a station ID to a station

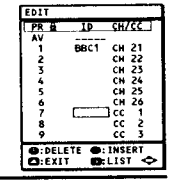
Generally the ID of the stations you are using, are already stored in the TV ID LIST and can be easily registered, however you can also manually register the ID number of the stations you like, respectively.

1. Press ▼/▲ button to select the station.

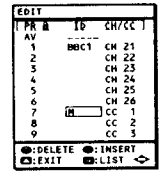


2. Press OK button.

MENU OK



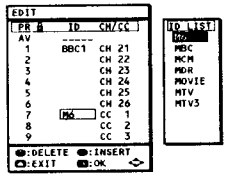
3. Press ▼/▲ button to select the first letter of the desired station's ID.



Programming a station's ID manually:
Follow the operations below in place of steps 3 thru 5.
(1) Press the ▼/▲ button repeatedly to select a character.
(2) Press ▶ button to move cursor to input position.
(3) To complete station ID, follow steps (1) and (2) repeatedly.
- A station ID can have up to 5 characters.

4. Press OK button.

MENU OK

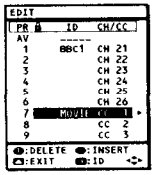


5. Press ▼/▲ button to select the station ID.

- To cancel the operation, press the Exit button repeatedly.

6. Press OK button.

MENU OK



9. Making external device settings

You can select S-VIDEO or normal input for the EXT-1 and EXT-2 terminals, and you can give an EXT ID to each EXT input terminal.

To change EXT settings

1. Press OK button.

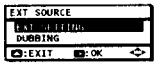
MENU

The MENU appears.

2. Press ▼/▲ button to select EXT SOURCE, then press OK button.

▽/△ ⇨ MENU

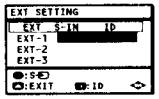
The EXT SOURCE menu appears.



3. Press ▼/▲ button to select EXT SETTING, then press OK button.

▽/△ ⇨ MENU

The EXT SETTING menu appears.



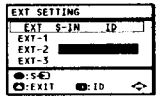
4. Use any of the procedures described in the following pages to change the EXT settings.

● This completes the procedure.
Press the Exit button repeatedly to exit the menu.

To select S-VIDEO input for a terminal

1. Press ▼/▲ button to select an EXT input terminal.

▽/△

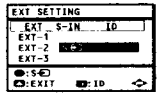


2. Press ⊖ button.

⊖

The S-VIDEO input indication appears.

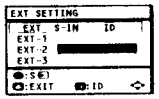
- To select normal input, press ⊖ again.



To give an EXT ID to an EXT input terminal

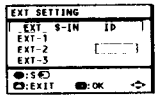
1. Press ▼/▲ button to select an EXT input terminal.

▽/△



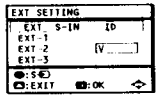
2. Press OK button.

MENU



3. Repeatedly press ▼/▲ button to select a character.

▽/△



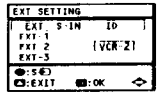
4. Press ▶ button to move the cursor forward.

▷

- Pressing ◀ button moves the cursor backward.

5. Repeat steps 3 and 4 to enter the EXT ID.

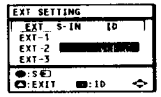
- To cancel the operation, press the Exit button.



Note:
- An EXT ID can have up to 5 characters.

6. Press OK button.

MENU



Note:
- To erase EXT ID, reset the EXT ID to a blank space.

10. Select EXT-2 output

Select output to a VCR or other device connected to the EXT-2 terminal. Note that you cannot output from the EXT-2 terminal when the TV is turned off.

Note:
- RGB signals from TV games and TELETEXT screens cannot be output from EXT-2 terminal.

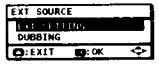
1. Press (OK) button.

MENU

The MENU appears.

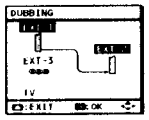
2. Press ▼/▲ button to select EXT SOURCE, then press (OK) button.

The EXT SOURCE menu appears.

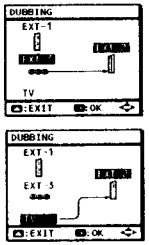


3. Press ▼/▲ button to select DUBBING, then press (OK) button.

The DUBBING menu appears.



4. Press ▼/▲ button to select the EXT input which you want to output from EXT-2.



TV:
The sound and picture of the currently selected PR channel is output from EXT-2, so you can record the output on a VCR connected to the EXT-2 terminal while watching a video input from the EXT-1 or EXT-3 terminal.

5. Press (OK) button.

The menu disappears.

11. Correcting a tilted image *(AV-32WX1EP only)*

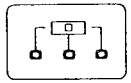
The AV-32WX1EP has a large picture tube in which a picture could be tilted to the left or right because of magnetic pull from the earth. Use the procedure described below to adjust the picture.

Note:
- The AV-28WX1EP does not have the tilted image correction function.

1. Press the PR channel V/Λ button to select a PR channel with a TV programme.

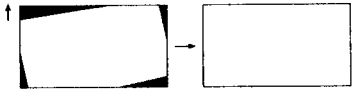
P

2. Set the Earth magnetism correction switch to the position that corrects the tilted image.

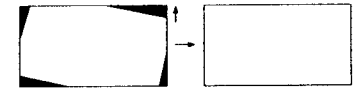


The Earth magnetism correction switch

If the left side is lower, slide the switch towards the ◯ mark.



If the right side is lower, slide the switch towards the ◯ mark.



BASIC OPERATION

Viewing a television programme

1. Press the Standby button.

The POWER lamp changes from red to green.

Notes:
- If your TV does not turn on, press the Main power button on the TV and then press Standby button again.
- You can also press the PR channel V/Λ button, a number button or the TV/Video button to turn the power on.

2. Select a PR channel.

Selection
- Press the PR channel V/Λ button.

P

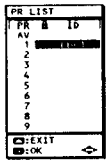
Direct channel selection
- Enter the channel number.

To select a one-digit channel number:
1. Press the corresponding number button.
   Example: To select channel 6, press "6".

To select a two-digit channel number:
1. Press -- button to display the "--" mark.
2. Press the corresponding number buttons.
   Example: To select channel 12, press -- button to display the "--" mark, then press "1" and "2".

To use the PR LIST to select a PR channel

1. Press PR. LIST button.
   PR.LIST
   The PR LIST appears.
   - To exit the PR LIST, press PR LIST button once again.



2. Press ▼/▲ button to select a PR channel.

   - Press ▶ button to view the next page of the PR LIST.
     Press ◀ button to view the previous page of the PR LIST.

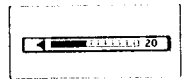
3. Press OK button.
   MENU

Note:
- The 🔒 mark will appear on the PR channel when the CHILD LOCK setting is on (see page 24).

Notes:
- If the picture is not clear or no colour appears, change the colour system manually (see page 21 for details).
- Enter "0" when selecting an AV channel (PR 0 channel).

3. Press the Volume –/+ button.

The level indicator appears and the volume changes.



4. Press the Standby button to turn the TV off.

The POWER lamp changes from green to red.
The TV enters Standby mode.

Note:
- To save energy, we recommend that you turn the main power off if you do not plan to use your TV for a long time.

To select a channel without using the remote control

You can also use the buttons on the front panel of the TV.

1. Press the PR channel V/Λ button to turn your TV on.

The POWER lamp changes from red to green.

Notes:
- If your TV does not turn on, press the Main power button, and then press the PR channel V/Λ button again.
- You cannot use the buttons on the TV to enter EXT mode.

2. Press the PR channel V/Λ button to select the PR channel.

3. Press the Volume –/+ button to adjust the sound.

4. To turn off your TV, press the Main Power button.

The POWER lamp goes off.

Note:
- If you press the Main Power button again, your TV automatically turns on, and Step 1 is no longer required.

VOLTAGE OF AV SEL. & MSP PWB CIRCUIT DIAGRAM

IC401

	[V]		[V]
1	4.8	11	4.6
2	5.0	12	0.8
3	4.8	13	5.1
4	5.0	14	5.1
5	4.8	15	4.3
6	4.8	16	5.1
7	0	17	5.4
8	4.8	18	5.1
9	9.6	19	0
10	4.2	20	4.8

IC601

	[V]		[V]		[V]		[V]
1	0.2	17	1.6	33	3.7	49	3.7
2	0	18	4.2	34	3.7	50	0
3	0	19	0	35	0	51	3.7
4	0	20	1.9	36	3.7	52	3.7
5	0	21	4.7	37	3.8	53	3.7
6	0	22	1.9	38	7.0	54	2.6
7	4.2	23	1.9	39	8.0	55	3.7
8	0	24	5.0	40	6.2	56	0
9	3.3	25	0.1	41	0	57	5.0
10	2.7	26	0.1	42	3.7	58	1.5
11	1.7	27	0	43	3.7	59	1.5
12	2.3	28	1.9	44	3.7	60	1.6
13	2.6	29	1.9	45	3.7	61	0
14	2.6	30	0	46	3.7	62	2.5
15	2.7	31	3.7	47	3.7	63	1.7
16	2.5	32	3.7	48	0	64	2.8

IC602

	[V]
1	6.1
2	6.1
3	6.1
4	0
5	6.1
6	6.1
7	6.1
8	12.2

IC603

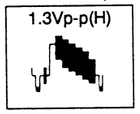
	[V]		[V]
1	6.0	9	0
2	0	10	12.2
3	6.0	11	0
4	0	12	6.0
5	6.0	13	6.0
6	0	14	6.0
7	0	15	0
8	0	16	12.3

TRANSISTORS [V]

Q	E	C	B	Q	E	C	B
Q101	4.4	10.6	5.1	Q401	2.2	5.0	0
Q102	3.6	12.2	4.2	Q402	5.0	1.5	0
Q103	0	0.2	0	Q403	4.4	12.3	5.1
Q104	0	0.2	0	Q503	4.7	12.2	5.4
Q105	3.9	0	3.2	Q504	2.5	5.4	0.1
Q201	3.1	9.9	3.8	Q601	0	12.2	0
Q202	5.7	3.8	5.0	Q602	0	0	0
Q203	0	0	0	Q603	0	0.7	0
Q204	0	0	0				

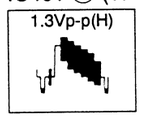
[28"]

IC401 ⑪ (TP-12)



[32"]

IC401 ⑪ (TP-12)



MAIN PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : MAIN PWB PATTERN page 3-35～3-38.

MAIN PWB ASS'Y
SJD-1001A-U2 (1/2).....28"
SJD-1002A-U2 (1/2).....32"

NOTE

*1 2SC1815(Y)-T
*2 2SA1015(Y)-T
*3 1SS133-T2
*4 DTC124ES-T
*5 1SS95-T5
× NON MOUNT (OPEN)
BW BUS WIRE

DIFFERENCES LIST

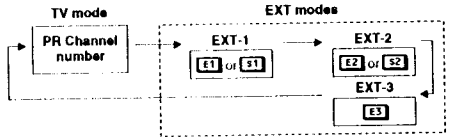
※	SJD-1001A-U2	SJD-1002A-U2
R254	39K	47K
R255	2.7K	2.7K
R256	27K	27K
R257	5.6K	8.2K
R258	×	47K
R259	2.2K	3.3K
R260	×	27K
R261	12K	5.6K
R262	22K	12K
R501	10K	15K
R510	3.9K	10K
⚠ R511	QRV141F-1692AY	QRV141F-1502AY
⚠ R516	QRV141F-2741AY	QRV141F-2211AY
R517	2.2K	8.2K
R522	1.8M	1M
R223	×	1M
C215	0	1/50
R502	10K	22K

Viewing images from external devices

To view images from an external device (such as a VCR) that is connected to the TV, select its EXT terminal.

1. Press the TV/Video button to select the EXT terminal.

- The current selection appears, and disappears after several seconds.



TV mode:
Shows images from an external device (such as a VCR) or TV aerial connected to the aerial socket of your TV.

EXT modes:
Shows images from an external device (such as a VCR) connected to the displayed terminal.

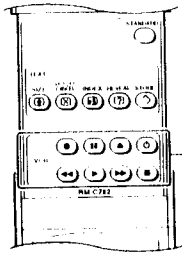
- To use S-Video mode to view input from an S-VHS VCR, see "To select S-VIDEO input for a terminal" on page 14. When selecting EXT-1 or EXT-2 input terminals as S-VIDEO input, E1 or E2 changes to S1 or S2 in the display.

Note:
- If the picture is not clear or no colour appears, change the colour system manually (see page 21).

Controlling your JVC VCR with the remote control

Each VCR button on the remote control corresponds to a button on a JVC VCR.

(Inside buttons)



Notes:
- For details, refer to the manual of your JVC VCR.
- Depending on your VCR, the remote control may not operate perfectly, and may not even control the VCR at all.

(No.51108) 1-11

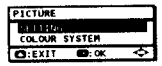
SOUND AND PICTURE

COLOUR SYSTEM

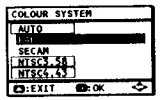
The colour system is automatically selected, but if the picture is not clear or no colour appears, select the colour system manually.

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select PICTURE, then press OK button.
The PICTURE menu appears.



3. Press ▼/▲ button to select COLOUR SYSTEM, then press OK button.
The COLOUR SYSTEM appears.



4. Press ▼/▲ button to select the appropriate colour system.

AUTO:
Automatic colour system selection.

5. Press OK button.
This completes the setting.

Notes:
- If not in PR 0 channel (AV) TV mode, AUTO cannot be selected.
- In TV mode NTSC3.58 and NTSC4.43 cannot be selected.
- AUTO may not function properly depending on signal quality. If the picture is abnormal in AUTO mode, select another colour system manually.

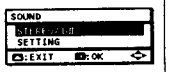
MULTI SOUND

You can select the multi sound mode for stereo broadcast programmes and bilingual programmes.

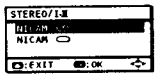
Note:
- The MULTI SOUND function has no effect on programmes other than A2 or NICAM (B/G,L) broadcast programmes.

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select SOUND, then press OK button.
The SOUND menu appears.



3. Press ▼/▲ button to select STEREO/I•II, then press OK button.
The STEREO/I•II menu appears.



Notes:
- The multisound function does not work in EXT modes. The STEREO/I•II menu does not appear.
- When watching broadcast programs other than A2 or NICAM (B/G,L) the multisound function does not work and the "MONO ○" display appears.
- The multisound mode display is different from the broadcast program.

4. Press ▼/▲ button to select a multi sound mode.

- ○○ : Stereo sound
- I : Bilingual I (Sub I)
- II : Bilingual II (Sub II)
- ○ : Normal sound

5. Press OK button.
This completes the setting.

Note:
- When you display the current PR channel number, the current multi sound mode appears for approximately 3 seconds.

MUTE

You can mute the volume to 0 instantly. This is convenient when answering the phone or when receiving visitors.

1. Press the Mute button.
The sound is muted.

To restore the sound:
Press the Mute button again.

Note:
- You can also restore the sound from the speakers by pressing the Volume −/+ button.

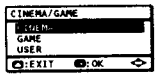
PICTURE/SOUND MODE

You can choose from among three picture/sound modes.

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select FEATURES, then press OK button.
The FEATURES menu appears.

3. Press ▼/▲ button to select CINEMA/GAME, then press OK button.
The CINEMA/GAME menu appears.



4. Press ▼/▲ button to select the desired mode.

CINEMA:
Use this setting when viewing film programmes.

GAME:
Use this setting when playing TV games.

USER:
Use to make your own personal setting.

5. Press OK button.
This completes the setting.

AV-28WX1EP
AV-32WX1EP

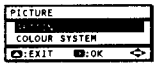
PICTURE/SOUND ADJUSTMENT

You can adjust the picture and sound as you like.
When setting PICTURE /SOUND mode by USER, your selected picture adjustments and sound settings are programmed in USER mode.

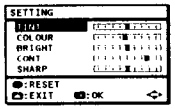
To adjust the picture

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select PICTURE, then press OK button.
The PICTURE menu appears.



3. Press ▼/▲ button to select SETTING.
The SETTING menu appears.



4. Press ▼/▲ button to select an item, and press ◄/► button to adjust it.

- To return to the default settings, press ⊖ button. When setting PICTURE/SOUND mode by USER, the default setting is changed into two types of default setting, STANDARD1 and STANDARD2, and these two type of defailt settig is alternate by pressing ⊖ button repeatedly. Picture white colour base changes as well as default settings.

◄	Item	►
Reddish	TINT (picture tint)	Greenish
Lighter	COLOUR (picture colour)	Deeper
Darker	BRIGHT (picture brightness)	Brighter
Lower	CONT (picture contrast)	Higher
Softer	SHARP (picture sharpness)	Sharper

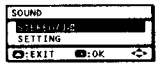
Note:
- You can adjust the TINT (picture tint) only when the colour system is NTSC 3.58 or NTSC 4.43.

5. Press OK button.
This completes the setting.

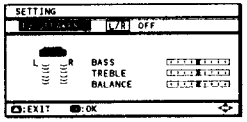
To adjust the sound

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select SOUND, then press OK button.
The SOUND menu appears.



3. Press ▼/▲ button to select SETTING, then press OK button.
The SETTING menu appears.



Note:
- When enjoying Dolby* Pro Logic Surround sound with 4 or 5 speakers, the Tone adjustment item in the DOLBY PRO LOGIC menu appears. For details, see page 27 "To adjust the tone". If you press OK button again, the menu disappears.
- Manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby", the double-D symbol and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

4. Press ▼/▲ button to select an item, and press ◄/► button to adjust it.

- To return to the default settings, press ⊖ button.

◄	Item	►
Weaker	BASS (low frequency sound)	Stronger
Weaker	TREBLE (high frequency sound)	Stronger
Left	BALANCE (audio balance)	Right

TV SPEAKER L/R OFF:
Use this function if you connect an audio amplifier and front speakers to your TV. If you set this function to OFF, sound is no longer output from the TV's speakers and the headphones connected to your TV. For details, see "To use 2 external speakers" on page 30.

Note:
- If you set TV SPEAKER to OFF, the illustration of the left and right external speakers appears beside the illustration of the TV.

5. Press OK button.
- This completes the setting.

To quickly and easily adjust the picture and sound

1. Press ▼/▲ button.
1 item is displayed.

2. Press ▼/▲ button repeatedly to select an item, and press ◄/► button to adjust it.

TINT → COLOUR → BRIGHT → TREBLE ← BASS ← SHARP ← CONT

STANDARD

With just one touch, you can restore the default picture and sound settings. There are two types of default settings, select the desired setting.

1. Press STANDARD button.

STANDARD — The default picture and sound settings are restored.

- After you Press the STANDARD button to alternate between the two default settings then change.

STANDARD1 ◄► STANDARD2

STANDARD 1
A cool white colour base with a boost in the colour and contrast levels. Creating a more vivid picture.

STANDARD 2
A normal white colour base with no boost in the colour or contrast levels.

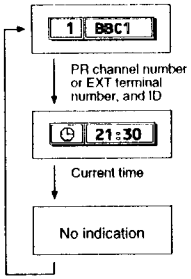
Note:
- The sound settings for STANDARD1 and STANDARD2 are the same.

OTHER FEATURES

DISPLAY

You can display the channel number, EXT terminal number and ID, or the current time.

1. Press the Display button repeatedly.
The display changes cyclically in the following order.



About the current time display:
This TV uses teletext data to determine the current time.

- If the TV has not received a station that has teletext data since it was turned on, the time display is blank. To view the current time, select a station that is broadcasting teletext data. As long as you do not turn off the TV, then even if you select other stations, the time will still be displayed.
- When watching videos, the wrong time is sometimes displayed.

Note:
- When selecting an EXT terminal eith no input signal, the EXT number and ID become fixed on the screen. In this case the display button will not work.

SLEEP TIMER

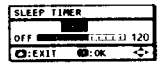
You can set the TV to automatically turn off after a specified period of time.

Note:
- The SLEEP TIMER does not turn off the Main power.

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select FEATURES, then press OK button.
The FEATURES menu appears.

3. Press ▼/▲ button to select SLEEP TIMER, then press OK button.
The SLEEP TIMER menu appears.



4. Press ◄/► button to select a period of time.
The displayed time changes in 10 minute increments.

OFF → 10 → 20 ••• 100 → 110 → 120

OFF:
Turns off the SLEEP TIMER.

5. Press OK button.
The selected period of time is displayed for approx. 3 seconds.

- The Sleep timer lamp lights if you set the SLEEP TIMER.

To display the remaining Sleep timer time:
Perform steps 1 to 3 to display the SLEEP TIMER menu, and press OK button when you finish checking the time.

To turn off the Sleep timer:
Perform steps 1 to 3 to display the SLEEP TIMER menu, press ◄/► button to select "OFF", and then press OK button.
- The Sleep timer lamp goes out.

Note:
- One minute before the SLEEP TIMER turns off the TV, "GOOD NIGHT!" appears. Three seconds before the SLEEP TIMER turns off the TV, "IVC" is displayed on the screen.

BLUE BACK

When viewing a PR channel with no or poor reception, or if there is no input from an external device, you can mute the sound and change the picture into a blue picture.

1. Press OK button.
The MENU appears.

2. Press ▼/▲ button to select FEATURES, then press OK button.
The FEATURES menu appears.

3. Press ▼/▲ button to select BLUE BACK, then press OK button.
The BLUE BACK menu appears.

4. Press ▼/▲ button to select ON or OFF.

5. Press OK button.
This completes the setting.

ECO MODE

When you set ECO MODE to ON, the screen contrast is automatically adjusted to a setting suitable for the brightness of your room.
For example, you can prevent watching a screen that is unnecessarily bright for a dark room. This reduces eye strain and the power consumption of the TV.

1. Press OK button.

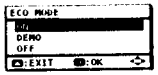
The MENU appears.

2. Press ▼/▲ button to select FEATURES, then press OK button.

The FEATURES menu appears.

3. Press ▼/▲ button to select ECO MODE, then press OK button.

The ECO MODE menu appears.



4. Press ▼/▲ button to select ON, OFF, or DEMO.

DEMO:
ECO MODE is on, and your TV displays the brightness of your room, measured in stars ☆, each time the brightness of your room changes. The brightness can be from one to six stars ☆, and the greater the number of stars, the darker your room is.

5. Press OK button.

This completes the setting.

- If you turned on ECO MODE, the ECO lamp lights.

CHILD LOCK

You can lock some PR channels to prevent your children from watching them.

To set the CHILD LOCK

1. Press OK button.

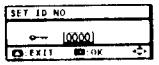
The MENU appears.

2. Press ▼/▲ button to select FEATURES, then press OK button.

The FEATURES menu appears.

3. Press ▼/▲ button to select CHILD LOCK, then press 0 (number 0) button.

The SET ID NO menu appears.

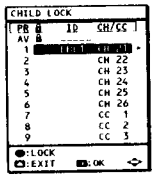


4. Enter the ID number.

- Press ▼/▲ button to select a number.
- Press ◀/▶ button to move the cursor.

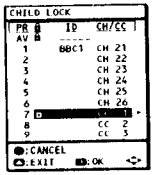
5. Press OK button.

The CHILD LOCK menu appears.



6. Press ▼/▲ button to select a PR channel, then press ◯ button.

The selected PR channel is locked.



- To cancel the CHILD LOCK Press ◯ button again.
- Repeat step 6 to lock all PR channels which you want to lock.

7. Press OK button.

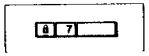
This completes the setting.

Notes:
- You cannot select a locked PR channel using the PR channel ∨/∧ buttons.
- Even if you select a locked PR channel, the fact that the channel is locked is displayed, but you cannot view the channel.

To view a locked PR channel

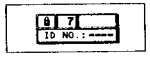
1. Select a locked PR channel.

- Use the numeric buttons or the PR. LIST to select the PR channel.
  The fact that the channel is locked is displayed.



2. Press the Exit button.

The ID NO. input menu appears.



3. Press the number buttons to enter the ID number.

You are now viewing the locked PR channel.

If you forget the ID number:
Perform steps 1 thru 3 of "To set the CHILDLOCK". After you confirm the ID number, press the Exit button repeatedly to exit the menu.

DEMONSTRATION

The demonstration runs automatically and introduces the menus of this TV's main features.

1. Press OK button.

The MENU appears.

2. Press ▼/▲ button to select DEMO, then press OK button.

The demonstration begins.

- To stop the demonstration, press any button on the remote control. Press the Exit button to exit the menu.

WIDE SCREEN

ZOOM

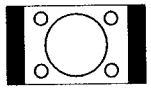
Manual selection

Select a ZOOM mode to change the picture format. You can enlarge the picture to fill the wide TV screen (16:9 aspect ratio). In addition, you can stretch a normal picture (4:3 aspect ratio) to fill the wide TV screen.

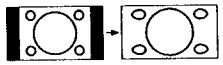
1. Press ZOOM button repeatedly to select a ZOOM mode.

ZOOM — The picture expands.

REGULAR mode:
Use to view a normal picture (4:3 aspect ratio) unchanged.



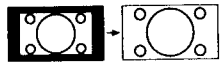
PANORAMIC mode:
Stretches the left and right sides of a normal picture to fill the screen, in a way that does not appear unnatural.



(REGULAR) (PANORAMIC)

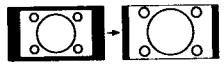
Note:
- In PANORAMIC mode, the top and bottom of the picture are slightly cut off.

16:9 ZOOM mode:
Use to expand a wide picture (16:9 aspect ratio).



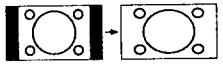
(REGULAR) (16:9 ZOOM)

14:9 ZOOM mode:
Use to expand a picture with a 14:9 aspect ratio.



(REGULAR) (14:9 ZOOM)

FULL mode:
Uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.



(REGULAR) (FULL)

Note:
- For pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), select FULL mode to restore their original dimensions.

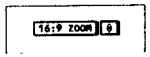
To move the picture vertically:

If you cannot see subtitles at the bottom of the screen, or if the top or bottom is cut off, move the picture vertically.

Note:
- You cannot move the picture vertically in REGULAR and FULL mode.

1. Press the ZOOM button.

ZOOM — The current ZOOM mode is displayed.



2. Before the display disappears, press ▼/▲ button to move the picture up or down.

△, ▽: Default position
▲, ▼: The picture is moved from default position.

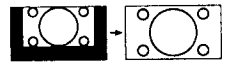
Note:
- If you change the ZOOM mode, the picture returns to its default position.

Automatic selection

The picture format information of the present broadcasting system carries the signal for WSS (Wide Screen Signaling). This TV automatically selects the most suitable ZOOM mode corresponding to the WSS signal.

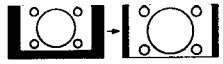
- When the WSS signal is received the most suitable ZOOM mode is automatically selected from the previous ZOOM modes, (with the exception of PANORAMIC mode), and the two ZOOM modes written below.

16:9 TOP:
Expands a picture that is raised and has a 16:9 aspect ratio, so that it fills the wide TV screen.



(REGULAR) (16:9 TOP)

14:9 TOP:
Expands a picture that is raised and has a 14:9 aspect ratio, so that it fills the wide TV screen.



(REGULAR) (14:9 TOP)

Notes:
- In the case of weak WSS signal reception, automatic selective function may not work correctly.
  In this case select a ZOOM mode manualy.
- If you select a ZOOM mode manualy automatic selective function will cancel.
  In this case select another PR channel or turn the TV off then on again in order to make automatic selective function start working again.
- If the EXT-1 terminal's input is from a picture signal with a 16:9 aspect ratio picture format, the ZOOM mode may automatically changes to FULL mode.
  This is because the TV detects an identification signal which is not an WSS signal.

SURROUND SOUND

DOLBY PRO LOGIC 3D-PHONIC

You can enjoy the ambiance of Dolby Surround encoded programmes.

Note:
- This function works only with Dolby Surround encoded programmes.
- When operating this funcion, the TV's 3D-PHONIC indicator light up.

1. Press OK button.

The MENU appears.

2. Press ▼/▲ button to select DIGITAL SURROUND, then press OK button.

The DIGITAL SURROUND menu appears, showing the currently active function.

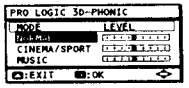
Note:
- If headphones are connected to the TV, DIGITAL SURROUND does not appear in the MENU. Disconnect the headphones.

3. Press ▼/▲ button to select PRO LOGIC 3D-PHONIC.

To cancel the function:
Select SURROUND OFF, then press OK button.

4. Press ▶ button.

The PRO LOGIC 3D-PHONIC menu appears.



5. Press ▼/▲ button to select the desired mode.

NORMAL:
For normal programmes

CINEMA/SPORT:
For cinema and sports programmes

MUSIC:
For music programmes

To adjust the effect level:
Press ◀/▶ button.

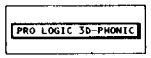
6. Press OK button.

Note:
- If, while using this function, you connect headphones to your TV, the 3D HEADPHONE function (see next page) activates automatically.

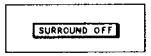
To turn on/off DOLBY PRO LOGIC 3D-PHONIC with one touch

1. Press 3D-PHONIC button.

3D-PHONIC DOLBY PRO LOGIC 3D-PHONIC turns on.



To cancel the function:
Press 3D-PHONIC button again.



Notes:
- If "CONNECTED" appears, unplug the headphones and do the operation again.
- You cannot change the DOLBY PRO LOGIC 3D-PHONIC mode or the effect level.

DIGITAL SURROUND

You can enjoy any one of the four Digital Surround function.

1. Press OK button.

The MENU appears.

2. Press ▼/▲ button to select DIGITAL SURROUND, then press OK button.

The DIGITAL SURROUND menu appears, showing the currently active function.

Note:
- If headphones are connected to the TV, DIGITAL SURROUND does not appear in the MENU. Disconnect the headphones.

3. Press ▼/▲ button to select the desired function.

DANCE CLUB:
For the atmosphere of a dance club

CONCERT HALL:
For the atmosphere of a concert hall

STADIUM:
For the atmosphere of a stadium

HYPER SOUND:
To give monaural sound the spacious feeling of stereo sound

To cancel the function:
Select SURROUND OFF.

4. Press OK button.

Notes:
- Only HYPER SOUND works well with monaural sound programmes.
- HYPER SOUND does not work well with stereo sound programmes.
- If, while using this function, you connect headphones to your TV, Headphone Surround (see next page) activates automatically.

HEADPHONE SURROUND

You can enjoy surround sound on your headphones. You can enjoy any one of the four Headphone surround functions.

Condition:
- Before performing this procedure, connect headphones to the TV.

1. Press OK button.

The MENU appears.

2. Press ▼/▲ button to select HEADPHONE SURROUND, then press OK button.

The HEADPHONE SURROUND menu appears, showing the currently active function.

Note:
- If headphones are not connected to the TV, HEADPHONE SURROUND does not appear in the MENU. Connect headphones to the TV.

3. Press ▼/▲ button to select the desired function.

3D HEADPHONE:
For a broad, atmospheric sound

DANCE CLUB:
For the atmosphere of a dance club

CONCERT HALL:
For the atmosphere of a concert hall

STADIUM:
For the atmosphere of a stadium

HYPER SOUND:
To give monaural sound the spacious feeling of stereo sound

To cancel the function:
Select SURROUND OFF.

4. Press OK button.

Note:
- HYPER SOUND does not work well with stereo sound programmes.

To turn the 3D-HEADPHONE on/off with one touch

1. Press the 3D-headphone button.

3D-HEADPHONE turns on.

To cancel the function:
Press the 3D-headphone button again.

Note:
- If "DISCONNECTED" appears, plug in headphones and do the operation again.

DOLBY PRO LOGIC SURROUND

You can also use Dolby Pro Logic Surround sound with 4 or 5 speakers. If you wish to use this system, additional amplifiers and speakers are required. For details, see "To use 4 or 5 speakers" on page 31.

Note:
- This function works only with Dolby Surround encoded programmes.

1. Press OK button.

The MENU appears.

2. Press ▼/▲ button to select DIGITAL SURROUND, then press OK button.

The DIGITAL SURROUND menu appears, showing the currently active function.

Note:
- If headphones are connected to the TV, DIGITAL SURROUND does not appear in the MENU. Disconnect the headphones.

3. Press ▼/▲ button to select DOLBY PRO LOGIC.

To cancel the function:
Select SURROUND OFF.

4. Press OK button.

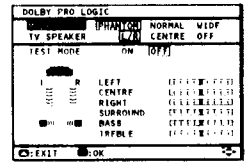
Note:
- If, while using this function, you connect headphones to the TV, the 3D HEADPHONE function (see above) activates automatically. However, note that you cannot use Dolby Pro Logic Surround with headphones.

To adjust the tone

1. Display the DIGITAL SURROUND menu, the press ▼/▲ button to select DOLBY PRO LOGIC.

2. Press ▶ button.

The DOLBY PRO LOGIC menu appears.



3. Press ▼/▲ button to select the desired item, and press ◀/▶ button to adjust the level.

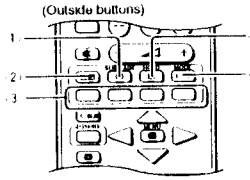
◀	Item	▶
Low	BASS	High
Low	TREBLE	High

4. Press OK button.

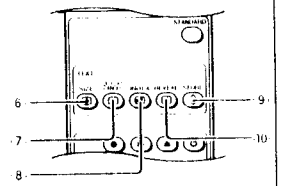
TELETEXT

Note:
- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station

(Outside buttons)



(Inside buttons)



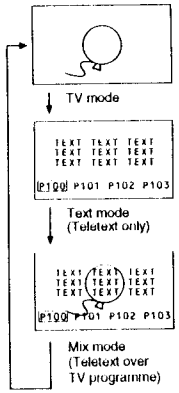
1 SUB PAGE button
2 TV/text/mix button
3 Colour buttons
4 HOLD button
5 MODE button
6 SIZE button
7 DISPLAY CANCEL button
8 INDEX button
9 STORE button
10 REVEAL button

BASIC TELETEXT OPERATION

You can view three types of teletext broadcasts on the TV: Fastext, TOP and WST. The TV automatically recognizes the type of teletext broadcast.

1. Select a channel with a teletext broadcast.

2. Press the TV/text/mix button repeatedly to select TEXT or MIX mode.



3. Select a page number.

Browse:
Press the PR channel ∨/∧ button.

Direct selection:
Press the number buttons to enter a three-digit page number.

Colour button selection:
Press a colour button to select the corresponding page number on the bottom line of the screen.

Notes:
- Category names of teletext pages may appear instead of page numbers.
- When in MIX mode the ZOOM mode may cut out Teletext information from the top and bottom of the screen. If you want to see all of the Teletext information, press the ZOOM button, and select REGULAR or FULL mode.

● To return to TV mode, press the TV/Video button.

Note:
- You can also return to TV mode by pressing the TV/text/mix button repeatedly.

DISPLAY CANCEL

You can search for a teletext page while watching TV.

1. Select a teletext page.

The TV searches for a teletext page.

2. Press DISPLAY CANCEL button.

The TV programme appears.

3. Press ZOOM button, select REGULAR or FULL mode.

When the TV finds the teletext page, its page number appears in the upper left of the screen.

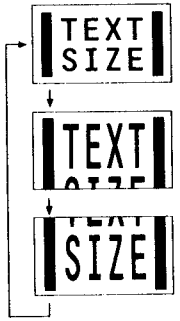
Note:
- If selecting something other than REGULAR or FULL mode for ZOOM mode, the page number does not appear on the screen.

4. Press the TV/text/mix button when the page number is on the screen.

SIZE

You can double the height of the teletext display.

1. Press SIZE button repeatedly.

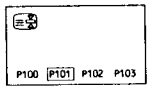


HOLD

You can hold a teletext page on the screen for a desired length of time, even while several other teletext pages are being received.

1. Press HOLD button.

⏸ is displayed in the upper left of the screen, and the teletext page is held on the screen.



To release hold mode:
Press HOLD button again.

Note:
- You can also release hold mode by selecting another page or by pressing INDEX button.

INDEX

Just press INDEX button to return to the index page.

1. Press INDEX button.

Fastext/TOP/WST:
Returns to page 100 or a previously specified page.

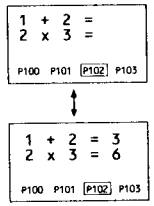
LIST mode:
Returns to the page number displayed in the lower left area of the screen.

REVEAL

Some teletext pages include hidden text (such as answers to a quiz).

1. Press REVEAL button.

Each time you press REVEAL button, text is hidden or revealed.



LIST MODE

If you store the numbers of teletext pages you view often, you can quickly call up a desired teletext page whenever you like.

Note:
- You can store up to 64 pages in memory. You can store four pages in each channel from 1 to 15 (60 pages), and four pages that are the same for all channels above channel 15 (4 pages).

To store the page numbers

1. Press MODE button to engage LIST mode.

Stored page numbers are displayed at the bottom of the screen.

2. Press a colour button, then enter the number of the teletext page.

To assign other pages to remaining colour buttons, repeat this operation.

3. Press and hold STORE button.

The four page numbers blink white to indicate that they are stored in memory.

To call up a stored page

1. Press MODE button to engage LIST mode.

Stored page numbers are displayed at the bottom of the screen.

To release LIST mode:
Press MODE button again.

2. Press a colour button to which a page has been assigned.

SUB PAGE

Some teletext pages include sub-pages that are automatically displayed. You can hold any sub-page, or view it at any time.

1. Call up a teletext page with sub-pages.

2. Press SUB PAGE button.

3. Enter the number of the sub-page.

Example:
To select the 3rd sub-page, press number buttons "0", "0", "0", and "3".

Note:
- You can also select a sub page by pressing the red or green colour button.

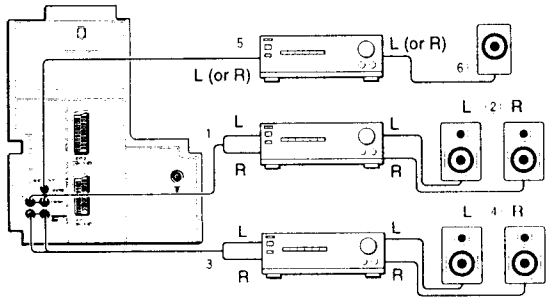
CONNECTING AMPLIFIERS AND SPEAKERS

Condition:
- When connecting audio amplifiers and speakers to your TV:
  - Turn the TV and audio amplifiers OFF before connecting them.
  - Set the audio amplifiers' volume to minimum.
  - Refer to manuals provided with the amplifier and speakers for further details.

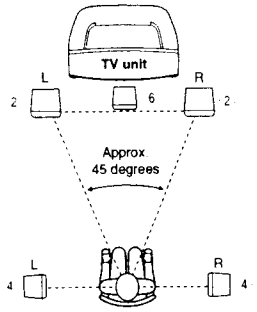
Notes:
- The AUDIO OUT terminals on your TV are for connecting to an audio system. The output level is controlled by the Volume controls of your TV. The signal from the AUDIO OUT terminals will not cut off when headphones are connected.
- If you connect a Dolby Pro Logic Surround decoder to your TV, use the FRONT L and R jacks. Your TV has Dolby Pro Logic Surround functions, so if you connect an external decoder, turn off all surround function on your TV.

1, 3: Stereo amplifier
2: Front speakers (magnetic-shielded type, L, R)
4: Surround speakers (L, R)
5: Stereo amplifier (or monaural amplifier)
6: Centre speaker (magnetic-shielded type)

(Terminals on rear)



Positioning speakers



Notes:
- For a good effect, place speakers 4 1.0 m above the seated listener's head.
- For a good effect, place speaker 6 as close as possible to the TV along the same line as or behind, speakers 2.
- Use magnetic-shielded speakers for speakers 2 and 6 to avoid TV interference.

To use 2 external speakers

1. Connect stereo amplifier ① and front speakers ② to your TV.

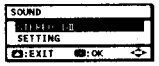
2. Turn your TV ON, and press the Volume –/+ button to set the volume to the lowest setting.

3. Press OK button.

The MENU appears.

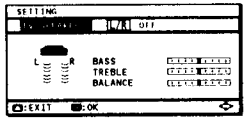
4. Press ▼/▲ button to select SOUND, then press OK button.

The SOUND menu appears.



5. Press ▼/▲ button to select SETTING, then press OK button.

The SETTING menu appears.



Note:
- If the DOLBY PRO LOGIC menu appears instead of the SETTING menu, press 3D-PHONIC button twice to turn off the Surround function, and then repeat steps 3 to 5.

6. Press ▼/▲ button to select TV SPEAKER.

7. Press ◀/▶ button to select OFF.

The TV's speakers become silent and the menu disappears after several seconds.

To output sound from the TV speakers:
Set TV SPEAKER to L/R.

Note:
- If TV SPEAKER is set to OFF, sound will no longer be output from the headphones connected to your TV.

8. Press OK button.

The menu disappears.

9. Turn your audio amplifier ON, and return the volume of your audio amplifier to the normal setting.

Note:
- Take care not to set the volume of your audio amplifier too high as this may damage your speakers.

10. Press the Volume –/+ button to adjust the volume.

● This completes the procedure.

To use 4 or 5 speakers

You can enjoy Dolby Pro Logic Surround sound with 4 or 5 speakers.

1. Connect audio amplifiers and speakers to the TV.

Do one of the following:

[A]: Connect stereo amplifier 3 and surround speakers 4. This leaves out the centre speaker.

[B]: Connect stereo amplifiers 1, 3, front speakers 2, and surround speakers 4. This uses the TV's speakers as the centre speakers.

[C]: Connect stereo amplifiers 1, 3, stereo amplifier (or monaural amplifier) 5, front speakers 2, surround speakers 4, and centre speaker 6. If you use this method, do not output sound from the TV's speakers.

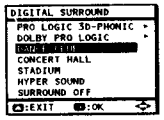
2. Turn your TV ON, and press the Volume –/+ button to set the volume to the lowest setting.

3. Press OK button.

The MENU appears.

4. Press ▼/▲ button to select DIGITAL SURROUND, then press OK button.

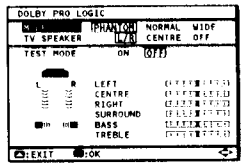
The DIGITAL SURROUND menu appears, showing the currently selected setting.



Note:
- If headphones are connected to the TV, DIGITAL SURROUND does not appear in the MENU. Disconnect the headphones.

5. Press ▼/▲ button to select DOLBY PRO LOGIC, then press ▶ button.

The DOLBY PRO LOGIC menu appears.



6. Press ▼/▲ button to select an item, and press ◀/▶ button to change its setting.

Method	Item: MODE	Item: TV SPEAKER
[A]	PHANTOM	L/R
[B]	NORMAL	CENTRE
[C]	NORMAL / WIDE	OFF

Note:
- Set MODE to WIDE when using a full-range speaker as the centre speaker. Frequencies of 100 Hz or lower are output from the centre speaker to give Dolby Surround an even greater impact.

7. Turn your audio amplifier ON, and return the volume of your audio amplifier to the normal setting.

Note:
- Take care not to set the volume of your audio amplifier too high as this may damage your speakers.

8. Press ▼/▲ button to select TEST MODE.

9. Press ◀/▶ button to set TEST MODE to ON, then press the Volume –/+ button to adjust the volume of the entire speaker system.

Test signals alternate between the speakers.

10. Press ◀/▶ button to adjust the level of each of the speakers so that their volumes are the same at the listening position (the place where the person is sitting in the diagram, see page 30).

LEFT, RIGHT:
Front speaker L, R

CENTRE:
Centre speaker

SURROUND:
Surround speakers

Notes:
- When MODE is set to PHANTOM, the volume of CENTRE (Centre speaker) cannot be adjusted.
- If the volume of both speakers is not the same even after adjusting the volume, adjust the volume of your audio amplifier.

11. Press OK button.

The menu disappears.

● This completes the procedure.

TROUBLESHOOTING

- If the plug is disconnected from the AC socket, or the TV aerial has problems, you may think there is a problem with the TV itself. Be sure to check the following before calling for service.

IMPORTANT

- Review all instructions in this manual.

■ GENERAL

Problem	Action
No power supply.	Insert the plug in an AC socket. Press the Main Power button (see page 6).
No picture or sound.	Check aerial connections (see page 4). Press the TV/Video button to select the correct mode (see page 20). Select the correct colour system manually (see page 21).
The power shuts off automatically.	Press the Standby button to turn the power on again (see page 6,18)
Inoperable remote control.	Replace the batteries (see page 5). Insert the batteries correctly (see page 5). Use the remote control within about 7 metres of the TV.

■ PICTURE

Problem	Action
Poor colour.	Adjust COLOUR and BRIGHT (see page 22). Select the correct colour system manually (see page 21). Press STANDARD button (see page 22).
The screen mode suddenly changed.	The ZOOM mode's automatic selective function is working (see page 25).
The picture is tilted (AV-32WX1EP only).	Use the Earth Magnetism Correction switch to correct the tilt (see page 17).
Lines or streaks in picture (interference).	Move the components apart until the interference is eliminated. Reposition the aerial.
Spots (crosstalk).	Reposition the aerial. Replace with an aerial with better directionality.
Double pictures (ghosts).	Reposition the aerial. Replace with an aerial with better directionality.
Snowy pictures (noise).	Check aerial connections. Redirect the aerial. Replace or repair the aerial.
The screen turns blue.	The BLUE BACK function is on (see page 23).

■ SOUND

Problem	Action
No sound from the TV's speakers.	Disconnect the headphones. Set TV SPEAKER to L/R (see page 30).
No sound from external speakers.	Turn your audio amplifiers on, and set them to the normal volume (see page 31).
No stereo sound.	In the STEREO/I•II menu, select ⊙ (stereo sound) (see page 21).
No "SUB-I" or "SUB-II" sound in a multisound broadcast.	In the STEREO/I•II menu, select I (Bilingual I/ Sub I) or II (Bilingual II/ Sub II) (see page 21).
Surround function does not function properly.	Dolby Pro Logic Surround and DOLBY PRO LOGIC 3D-PHONIC work properly only with Dolby Surround encoded programmes. Functions other than HYPER SOUND and the Headphone surround functions work properly only with stereo programmes. HYPER SOUND works properly only with monaural programmes.

■ TELETEXT

Problem	Action
No teletext reception.	Tune to a teletext broadcast channel (see page 28). We recommend that you not videotape teletext, as it may not be recorded correctly.
The current time is not displayed.	Tune to a teletext broadcast channel (see page 23).

The following are normal and are NOT malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- The TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a bright a still image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and as the bright image disappears, such colouration also disappears.
- This TV is equipped with a microcomputer that may operate abnormally due to interference from external components. If this happens, turn off the main power and disconnect the power cord from the AC socket. Then reconnect the AC socket and turn on the main power again.

Channel table

- The following table shows the relationship between the displayed CH/CC channel number and the actual channel number.
- The "CC1--" channel number displayed on your TV is different from the actual cable TV channel number. Using the broadcast frequency of the cable TV channel, check the chart below to see which "CC1--" number corresponds to which actual cable TV channel number. If you have any questions concerning the broadcast frequencies of cable TV stations, please ask your local cable TV station.

CH –	Channel
CH 2	E2, ITALY A
CH 3	E3
CH 4	E4, ITALY B
CH 5	E5, ITALY D
CH 6	E6, ITALY E
CH 7	E7, ITALY F
CH 8	E8, ITALY G
CH 9	E9
CH 10	E10, ITALY H
CH 11	E11, ITALY H+1
CH 12	E12, ITALY H+2
CH 21	E21
CH 22	E22
CH 23	E23
CH 24	E24
CH 25	E25
CH 26	E26
CH 27	E27
CH 28	E28
CH 29	E29
CH 30	E30
CH 31	E31
CH 32	E32
CH 33	E33
CH 34	E34
CH 35	E35
CH 36	E36
CH 37	E37
CH 38	E38
CH 39	E39
CH 40	E40
CH 41	E41
CH 42	E42
CH 43	E43
CH 44	E44
CH 45	E45
CH 46	E46
CH 47	E47
CH 48	E48
CH 49	E49
CH 50	E50

CH –	Channel
CH 51	E51
CH 52	E52
CH 53	E53
CH 54	E54
CH 55	E55
CH 56	E56
CH 57	E57
CH 58	E58
CH 59	E59
CH 60	E60
CH 61	E61
CH 62	E62
CH 63	E63
CH 64	E64
CH 65	E65
CH 66	E66
CH 67	E67
CH 68	E68
CH 69	E69

CC	channel
CC 1	S1
CC 2	S2
CC 3	S3
CC 4	S4
CC 5	S5
CC 6	S6
CC 7	S7
CC 8	S8
CC 9	S9
CC 10	S10
CC 11	S11
CC 12	S12
CC 13	S13
CC 14	S14
CC 15	S15
CC 16	S16
CC 17	S17
CC 18	S18
CC 19	S19
CC 20	S20
CC 21	S21
CC 22	S22
CC 23	S23
CC 24	S24
CC 25	S25
CC 26	S26
CC 27	S27
CC 28	S28
CC 29	S29
CC 30	S30
CC 31	S31
CC 32	S32
CC 33	S33
CC 34	S34
CC 35	S35
CC 36	S36
CC 37	S37
CC 38	S38
CC 39	S39
CC 40	S40

CC	channel
CC 41	S41
CC 75	X
CC 76	Y
CC 77	Z, ITALY C
CC 78	Z+1
CC 79	Z+2

CH 1–	Channel
CH 102	F2
CH 103	F3
CH 104	F4
CH 105	F5
CH 106	F6
CH 107	F7
CH 108	F8
CH 109	F9
CH 110	F10
CH 121	F21
CH 122	F22
CH 123	F23
CH 124	F24
CH 125	F25
CH 126	F26
CH 127	F27
CH 128	F28
CH 129	F29
CH 130	F30
CH 131	F31
CH 132	F32
CH 133	F33
CH 134	F34
CH 135	F35
CH 136	F36
CH 137	F37
CH 138	F38
CH 139	F39
CH 140	F40
CH 141	F41
CH 142	F42
CH 143	F43
CH 144	F44
CH 145	F45
CH 146	F46
CH 147	F47
CH 148	F48
CH 149	F49
CH 150	F50

CH 1–	Channel
CH 151	F51
CH 152	F52
CH 153	F53
CH 154	F54
CH 155	F55
CH 156	F56
CH 157	F57
CH 158	F58
CH 159	F59
CH 160	F60
CH 161	F61
CH 162	F62
CH 163	F63
CH 164	F64
CH 165	F65
CH 166	F66
CH 167	F67
CH 168	F68
CH 169	F69

CC 1–	Frequency (MHz)
CC 110	116 - 124
CC 111	124 - 132
CC 112	132 - 140
CC 113	140 - 148
CC 114	148 - 156
CC 115	156 - 164
CC 116	164 - 172
CC 123	220 - 228
CC 124	228 - 236
CC 125	236 - 244
CC 126	244 - 252
CC 127	252 - 260
CC 128	260 - 268
CC 129	268 - 276
CC 130	276 - 284
CC 131	284 - 292
CC 132	292 - 300
CC 133	300 - 306
CC 141	306 - 311
CC 142	311 - 319
CC 143	319 - 327
CC 144	327 - 335
CC 145	335 - 343
CC 146	343 - 351
CC 147	351 - 359
CC 148	359 - 367
CC 149	367 - 375
CC 150	375 - 383
CC 151	383 - 391
CC 152	391 - 399
CC 153	399 - 407
CC 154	407 - 415
CC 155	415 - 423
CC 156	423 - 431
CC 157	431 - 439
CC 158	439 - 447
CC 159	447 - 455
CC 160	455 - 463
CC 161	463 - 469

CH 2–	Channel
CH 202	E2, ITALY A
CH 203	E3
CH 204	E4, ITALY B
CH 205	E5, ITALY D
CH 206	E6, ITALY E
CH 207	E7, ITALY F
CH 208	E8, ITALY G
CH 209	E9
CH 210	E10, ITALY H
CH 211	E11, ITALY H+1
CH 212	E12, ITALY H+2
CH 221	E21
CH 222	E22
CH 223	E23
CH 224	E24
CH 225	E25
CH 226	E26
CH 227	E27
CH 228	E28
CH 229	E29
CH 230	E30
CH 231	E31
CH 232	E32
CH 233	E33
CH 234	E34
CH 235	E35
CH 236	E36
CH 237	E37
CH 238	E38
CH 239	E39
CH 240	E40
CH 241	E41
CH 242	E42
CH 243	E43
CH 244	E44
CH 245	E45
CH 246	E46
CH 247	E47
CH 248	E48
CH 249	E49
CH 250	E50

CH 2–	Channel
CH 251	E51
CH 252	E52
CH 253	E53
CH 254	E54
CH 255	E55
CH 256	E56
CH 257	E57
CH 258	E58
CH 259	E59
CH 260	E60
CH 261	E61
CH 262	E62
CH 263	E63
CH 264	E64
CH 265	E65
CH 266	E66
CH 267	E67
CH 268	E68
CH 269	E69

CC 2–	Channel
CC 201	S1
CC 202	S2
CC 203	S3
CC 204	S4
CC 205	S5
CC 206	S6
CC 207	S7
CC 208	S8
CC 209	S9
CC 210	S10
CC 211	S11
CC 212	S12
CC 213	S13
CC 214	S14
CC 215	S15
CC 216	S16
CC 217	S17
CC 218	S18
CC 219	S19
CC 220	S20
CC 221	S21
CC 222	S22
CC 223	S23
CC 224	S24
CC 225	S25
CC 226	S26
CC 227	S27
CC 228	S28
CC 229	S29
CC 230	S30
CC 231	S31
CC 232	S32
CC 233	S33
CC 234	S34
CC 235	S35
CC 236	S36
CC 237	S37
CC 238	S38
CC 239	S39
CC 240	S40
CC 241	S41
CC 275	X
CC 276	Y
CC 277	Z, ITALY C
CC 278	Z+1
CC 279	Z+2

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AV-28WX1EP
AV-32WX1EP

SPECIFICATIONS

Item \ Model	AV-28WX1EP	AV-32WX1EP
TV RF systems	CCIR L, B/G, I	
Colour systems	PAL, SECAM (NTSC 3.58 / 4.43 MHz only in EXT modes)	
Channels and frequencies	F2-F10, F21-F69, E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, A-H, H+1, H+2 * Receives French cable TV channel frequencies 116 – 172 MHz and 220 –469 MHz	
Sound-multiplex systems	A2 / NICAM (B/G, L) system	
Teletext systems	Fastext (United Kingdom system) / TOP (German system) / WST (standard system)	
Power requirements	AC 220 – 240 V, 50 Hz	
Power consumption	Maximum 217 W, Average 116 W Standby 1.1 W	Maximum 218 W, Average 116 W Standby 1.1 W
Picture tube size	Visible area 66 cm (measured diagonally)	Visible area 76 cm (measured diagonally)
Audio output	Rated Power output 20 W + 20 W	
Speakers	3.5 cm round × 2, 10 cm round × 2	
External input / output	EXT-1, EXT-2: 21-pin Euroconnector (SCART)	
	EXT-3: VIDEO IN (RCA) AUDIO L / R IN (RCA)	
	AUDIO OUT: (Variable out (0-1 Vrms), low impedance) CENTRE output (RCA) FRONT L/R output (RCA) SURROUND REAR L/R output (RCA)	
	Headphone jack (stereo mini jack, dia. 3.5 mm)	
Dimensions (W × H × D)	716 mm × 489 mm × 496 mm	805 mm × 550 mm × 550 mm
Weight	37.5 kg	48.4 kg
Accessories	Remote control unit RM-C782 × 1 AAA (R03) dry cell battery × 2	

Design and specifications subject to change without notice.

Pictures displayed on the screen using this TV's image-processing functions should not be shown for any commercial or demonstration purpose in public places (tearooms and halls in hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.

JVC
VICTOR COMPANY OF JAPAN, LIMITED

SPECIFICATIONS

Item	Content	
	28"	32"
Dimensions(W×H×D) Mass	716mm×489mm×496mm 37.5kg	805mm×550mm×550mm 48.4kg
TV RF System Colour System Stereo System Teletext system	CCIR L, B/G, I PAL / SECAM / NTSC (only in EXT modes) NICAM (L, B/G) / A2(B/G) FASTEXT (United Kingdom system), TOP (Germany system) WST (Standard system)	
Receiving Channels and Frequency VHF UHF Intermediate Frequency VIF Carrier SIF Carrier Colour Sub Carrier Frequency PAL SECAM NTSC	 47MHz - 470MHz [E2~E12, ITALY A~H+2, X~Z+2, S1~S41 NF-B~NF-6, B~Q, F2~F10] 470MHz - 862MHz E21~E69, F21~F69 38.9MHz (L, B/G, I) / 34.25MHz (L') 32.4MHz (L: 6.5MHz), 33.4MHz (B/G: 5.5MHz) 32.9MHz (I: 6.0MHz) / 40.75MHz (L': 6.5MHz) 4.43MHz 4.40625MHz / 4.25MHz 3.58MHz / 4.43MHz	
Power Input	230V (220~240V) AC , 50Hz	
Power Consumption	116W(Avg.), 217W(Max)	116W(Avg.), 218W(Max)
Picture Tube	Visible size: 66cm Diagonally measured	Visible size : 76cm Diagonally measured
High Voltage	32.0kV $^{+1kV}_{-1.5kV}$ (at zero beam current)	
Speaker Audio Output	φ3.5cm round×2, φ10cm round ×2 (8Ω) 20W + 20W	
External EXT-1 / EXT-2 (INPUT/OUTPUT) EXT-3 (INPUT) Aerial Input Terminal	 21-pin Euroconnector (SCART socket) Video : 1VP-P 75Ω (RCA pin jack) Audio(L/R) : 500mVrms (-4dBs) , High Impedance (RCA pin jack) 75Ω Unbalanced, Coaxial	
Remote Control Unit	RM-C782 [Battery size ; UM-4 AAA IECR03 1.5V×2]	

Design & specification subject to change without notice.

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AV-28WX1EP
AV-32WX1EP

SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠)on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED(NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B_1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   (1) **Dielectric Strength Test**
   The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
   (. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
   This method of test requires a test equipment not generally found in the service trade.
   (2) **Leakage Current Check**
   Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
   • Alternate Check Method
   Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

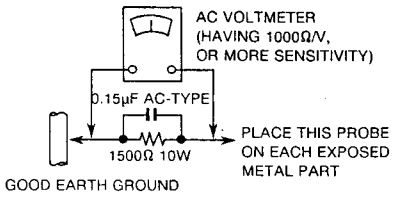


Fig.A

FEATURES

- By preference, users can select the picture size from REGULAR, FULL, 16:9 ZOOM, 14:9 ZOOM, 16:9 TOP, 14:9 TOP modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 ZOOM mode automatically.
- The TELETEXT SYSTEM has a built-in FASTEXT, TOP and WST system.
- Picture and sound can be changed in a moment to CINEMA, GAME, STANDARD 1 & 2 and USER modes, respectively.At USER mode, desired qualities of picture and/or sound can be stored.
- Thanks to the newly employed DSP control micro computer, users can select 3D-PHONIC , and enjoy Surround effect at each mode.
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.
- Users can make VTR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output.
- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.

MAIN DIFFERENCE LIST BETWEEN AV-28WX1EP AND AV-32WX1EP

ITEMS	AV-28WX1EP	AV-32WX1EP	REMARKS
PICTURE TUBE	W66LKV075X05	W76ESF031X14	V01
DEG. COIL	CELD061-001J2	CELD062-001J2	L01
BRAIDED ASS'Y	CHGB0015-0B	CHGB0018-0A-N	
FRONT CABI. ASS'Y	CM12677-B0D-KD	CM12587-B0J-KD	
REAR COVER	CM12582-004-KD	CM12737-003-KD	
HVT	CETH014-00AJ1	CETH015-00AJ1	
PACKING CASE (EURO BOX)	AEM1002-044-E	AEM1002-043-E	
CUSHION ASS'Y	CP11547-00B-E	CP11549-00B-E	
EURO LABEL	AEM1038-023-E	AEM1038-025-E	
ROTATION COIL	————	CELD904-001	L03
MAIN PWB ASS'Y	SJD-1001A-U2	SJD-1002A-U2	
POWER/DEF PWB ASS'Y	SJD-2001A-U2	SJD-2002A-U2	
CRT SOCKET PWB ASS'Y	SJD-3001A-U2	SJD-3002A-U2	
FRONT CONTROL PWB ASS'Y	SJD-8001A-U2	SJD-8002A-U2	

SPECIFIC SERVICE INSTRUCTIONS

REPLACEMENT OF CHIP COMPONENT

■CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■SOLDERING IRON

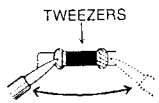
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■REPLACEMENT STEPS

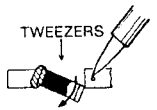
1. How to remove Chip parts

●Resistors, capacitors, etc

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

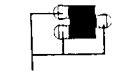


(2) Shift with tweezers and remove the chip part.

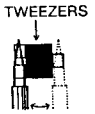


●Transistors, diodes, variable resistors, etc

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

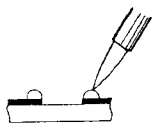


Note: After removing the part, remove remaining solder from the pattern.

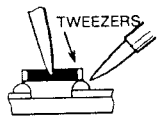
2. How to install Chip parts

●Resistors, capacitors, etc

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

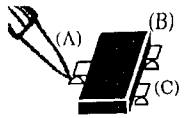


●Transistors, diodes, variable resistors, etc

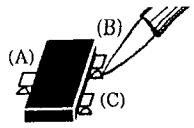
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



AV-28WX1EP
AV-32WX1EP

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

[AV-28WX1EP]

1. Unplug the power supply cord.
2. Remove the **13** screws marked Ⓐ as shown in Fig. 2.
3. Withdraw the rear cover toward you.

[AV-32WX1EP]

1. Unplug the power supply cord.
2. Remove the **13** screws marked Ⓐ as shown in Fig. 1.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the 2 claws under the both sides of the chassis from the front cabinet.
2. Withdraw the chassis backward.
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMINAL BOARD

1. Remove a screw marked Ⓑ as shown in Fig. 2.
2. While raising the claw marked Ⓓ, remove the AV TERMINAL board slightly. (Fig. 3)
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE SPEAKER BOX

- After removing the rear cover.

1. Remove the 2 screws marked Ⓒ as shown in Fig. 2.
2. Follow the same steps when removing the other hand speaker box.

Note:

- When removing the screws marked Ⓒ of the speaker box, remove the lower side screw first, and then remove the upper screw.

CHECKING THE PW BOARD

1. To check the back side of the PW Board.
   1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
   2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT earth wire (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

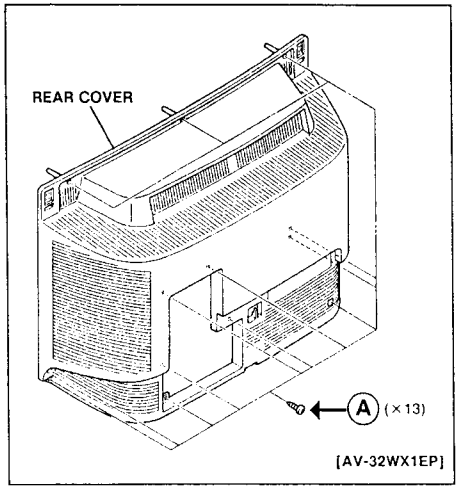


Fig. 1

[AV-28WX1EP]

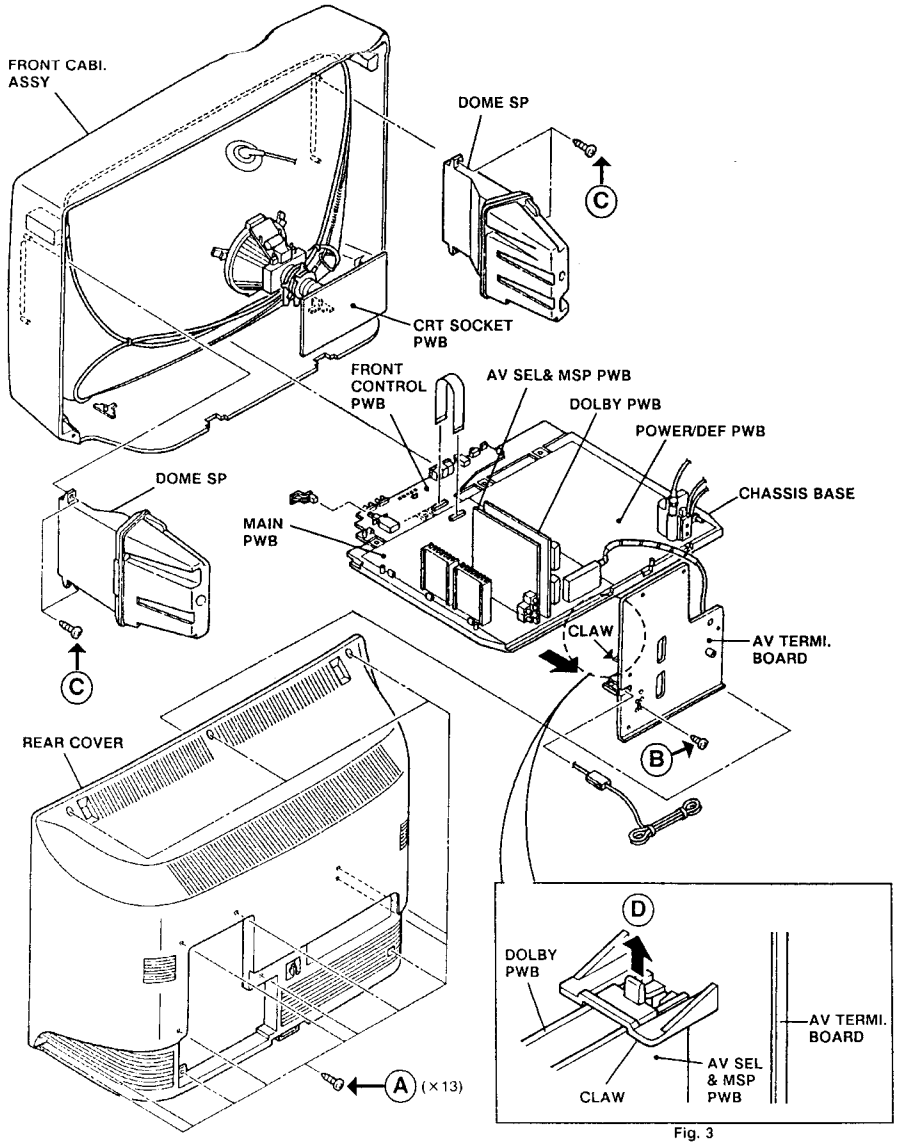


Fig. 2

Fig. 3

REMOVING THE CRT

※ Because of the considerable weight, at least 2 workers are needed to replace the CRT.

- Remove the rear cover.
- Take out the main chassis. Disengage the connectors of the anode cap, degaussing coil etc. (Fig.4) and remove the chassis completely.

1. As indicated in Fig. 5 , place an under layer of soft cloth. A top of this, prepare a work stand also covered with soft cloth.
2. After removing the chassis, place the set on the work stand in a balanced manner with the CRT face downwards.
3. Use a screw-driver to remove 4 screws. Use care the cabinet does not drop downwards when the screws are removed.
4. Gently lower the cabinet onto the cloth while using care not to scratch the cabinet.

- Install the new CRT by reversing the above steps.

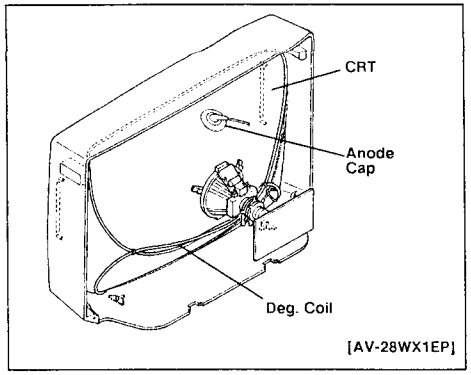


Fig. 4

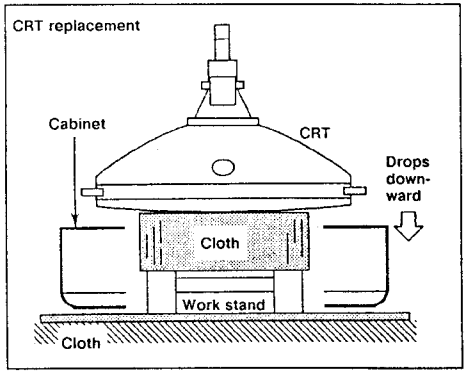


Fig. 5

APPLY INSULATING SILICON GREASE TO ANODE CAP

- After replacing the CRT , flyback transformer or performing service with the anode cap disconnected, be sure to apply insulating silicon grease as indicated in Fig. 6.

1. Wipe the anode button circumference with a clean cloth.
2. As shown in Fig. 6, apply silicon grease around the anode button circumference, but use care not to apply the grease to the button itself.

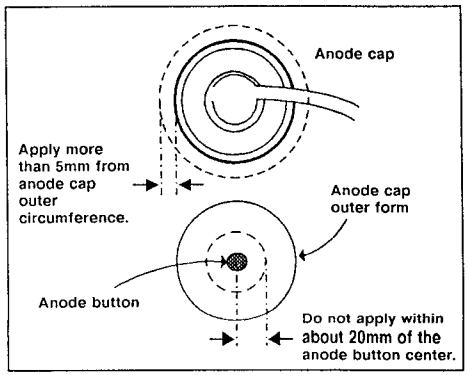

Anode cap
Apply more than 5mm from anode cap outer circumference.
Anode cap outer form
Anode button
Do not apply within about 20mm of the anode button center.

Fig. 6

REPLACEMENT OF MEMORY ICs

1. Memory IC

This TV use a non-volatile memory IC (EEP-ROM IC). In the memory IC are memorized data for correctly operating the video and deflection circuits. When replacing it, be sure to use a memory IC containing the initial values (not blank one).

2. Procedure for replacing memory ICs

Procedure
(1) **Power off** Switch the power off and unplug the power code from the outlet.
(2) **Replacing the memory IC.** Replace with the new memory IC containing the initial values.
(3) **Power on** Plug the power code into the outlet and switch the power on.
(4) **Check and set SYSTEM CONSTANT SET** 1) Press the DISPLAY key and the STANDARD key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen shown in Fig. 1 will be displayed. 3) While the SERVICE MENU on display, press the DISPLAY key and STANDARD key simultaneously, and the SYSTEM CONSTANT SET screen shown in Fig. 2 will be displayed. 4) Check the setting value of the SYSTEM CONSTANT SET shown in Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION L/R key. 5) Press the OK key and memorize the setting value. 6) Press the DISPLAY key twice, and return to the normal screen.
(5) **Setting of receive channels** Set the receive channels. For setting, refer to the **OPERATING INSTRUCTIONS.**
(6) **User Setting** Check the user setting value of Table 2, and if setting value is different, set the correct value. For setting, refer to the **OPERATING INSTRUCTIONS.**
(7) **Setting of SERVICE MENU** Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the **SERVICE ADJUSTMENTS.**

SERVICE MENU

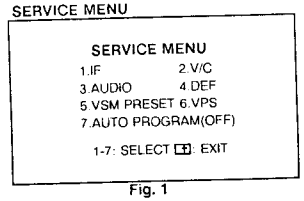


Fig. 1

SYSTEM CONSTANT SET

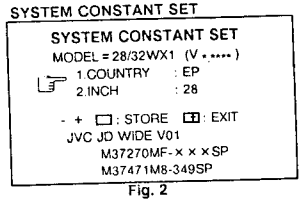


Fig. 2

[AV-28WX1EP]

NAMES OF REMOTE CONTROL KEY

Names of key	key
DISPLAY	+
OK	OK
FUNCTION UP/DOWN	▲ ▼
FUNCTION L/R	◀ ▶

Table 1
SETTING VALUES OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value
1. COUNTRY	EP → EK	EP
2. INCH	28 → 32	AV-28WX1EP . . 28 AV-32WX1EP . . 32

Table 2
USER SETTING VALUES

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	DISPLAY	POSITION DISPLAY
CHANNEL	1 POSITION	TV/EXT	TV
VOLUME	Appropriate sound volume	ASPECT MODE(ZOOM)	FULL

MENU ITEM SETTING VALUES

Setting item		Setting value	Setting item			Setting value
PICTURE	COLOR SYSTEM	AUTO	SOUND	SETTING	TV SPEAKER	L/R
	SETTING	ALL CENTER			BASS	CENTER
FEATURES	SLEEP TIMER	0			TREBLE	
	CINEMA/GAME	USER			BALANCE	
	ECO MODE	OFF				
	BLUE BACK	ON				
DIGITAL SUUOUND	SURROUND OFF					
EXT SOURCE	DUBBING	EXT1 → EXT2				
INSTALL	LANGUAGE	ENGLISH				

Table 3
SERVICE MENU SETTING ITEMS

Service menu	Setting item	Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT	4. DEF.	1. V-SLOPE 6. EW-PIN 2. V-SHIFT 7. TRAPEZ 3. V-SIZE 8. V-S. CR 4. H-CENT 9. EW-COR 5. H-SIZE
2. V / C	1. CUT OFF 2. R DRIVE 3. G DRIVE 4. B DRIVE (Do not adjust) 5. BRIGHT 6. CONT. 7. COLOUR (PAL/SECAM /N3 /N4) 8. TINT (NTSC)	5. VSM PRESET	1. BRIGHT 6. R DRIVE 2. CONT. 7. G DRIVE 3. COLOUR 8. B DRIVE 4. SHARP 9. BASS 5. TINT 10. TREBLE
3. AUDIO	1. CONC LIMIT (Do not adjust) 2. A2 ID THR (Do not adjust)		

SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. **There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
2. **The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
3. Turn on the power of the TV and measuring equipment for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
   Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

(1) VSM preset	Push "STANDARD" key to set STANDARD 1 mode
(2) ECO	OFF
(3) SURROUND	OFF
(4) BALANCE	CENTER
(5) ASPECT MODE	FULL
(6) ROTATION SW [For 32 inch only]	CENTER (RESET)

■ Push the STANDRD key before starting the adjustments, and do not push it during the adjustments.

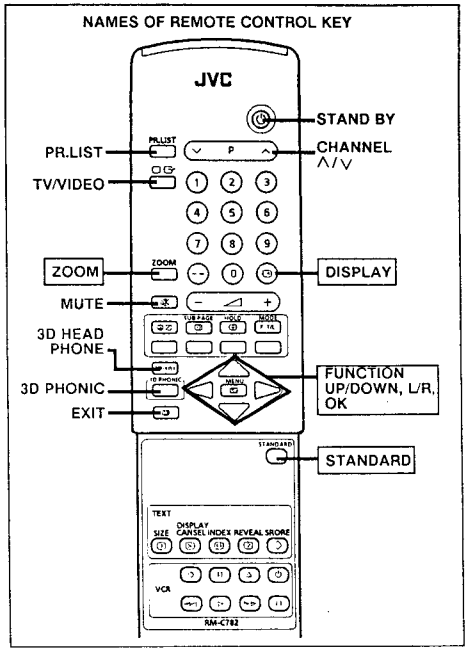
ADJUSTMENT ITEMS

- B1 power supply check
- FOCUS adjustment
- IF circuit adjustment
- VSM PRESET setting
- VIDEO / CHROMA circuit adjustment
- DEFLECTION circuit adjustment
- BLANKING adjustment
- AUDIO circuit adjustment (Do not adjust)
- VPS monitor display (Do not adjust)

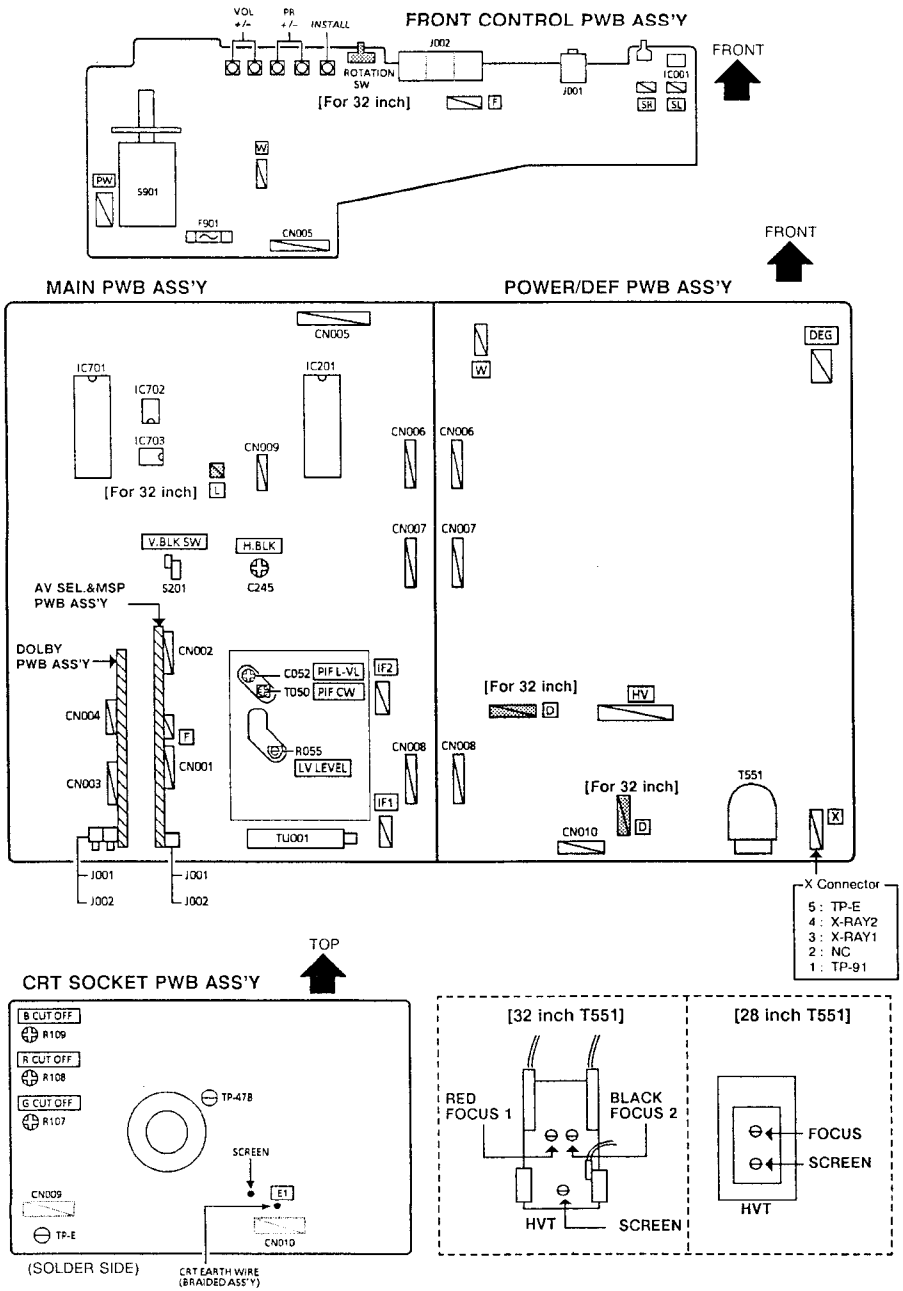
MEASUREMENT EQUIPMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT LOCATIONS- I



ADJUSTMENT LOCATION-II



BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION
   Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS
   With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

   (1) 1. IF ..... This mode adjusts the data of the IF circuit.
   (2) 2. V/C ..... This mode adjusts the data of the VIDEO / CHROMA circuit.
   (3) 3. AUDIO ..... This mode adjusts DETECTION LEVEL of the signal for IC of A2/NICAM multiplex broadcast. (Do not adjust).
   (4) 4. DEF ..... This mode adjusts the data of DEFLECTION circuit for each aspect mode given below.

FULL	(50 / 60Hz)
16:9 TOP	(50 / 60Hz)
14:9 TOP	(50 / 60Hz)
REGULAR	(50 / 60Hz)
PANORAMIC	(50 / 60Hz)
16:9 ZOOM	(50 / 60Hz)
14:9 ZOOM	(50 / 60Hz)

   (5) 5. VSM PRESET ..... This mode adjusts the data value of the picture and sound which are called out when CINEMA/GAME picture status in the FEATURE menu has been selected. (VSM : Video Status Memory)
   (6) 6. VPS ..... This mode shows the monitor of the VPS and PDC. (Do not adjust). (VPS : Video Program System, PDC : Program Delivery Code)
   (7) 7. AUTO PROGRAM .. This mode initializes every existing set value collectively to the preset value at the time of shipment from the factory.

3. BASIC OPERATION OF SERVICE MENU
   (1) How to enter SERVICE MENU
   Press the DISPLAY and the STANDARD key of the REMOTE CONTROL UNIT simultaneously (Fig. 2).
   The SERVICE MENU screen of Fig.1 will be displayed.

   (2) Selection of SUB MENU SCREEN
   1) Press one of the keys 1 ~ 7 of the REMOTE CONTROL UNIT, and select the SUB MENU SCREEN (See Fig. 3) from the SERVICE MENU.
   SERVICE MENU → SUB MENU
   1. IF
   2. V / C
   3. AUDIO
   4. DEF.
   5. VSM PRESET
   6. VPS
   7. AUTO PROGRAM

SERVICE MENU

SERVICE MENU
1.IF 2.V/C
3.AUDIO 4.DEF
5.VSM PRESET 6.VPS
7.AUTO PROGRAM(OFF)
1-7: SELECT ☐ EXIT

Fig. 1

NAMES OF REMOTE CONTROL KEY

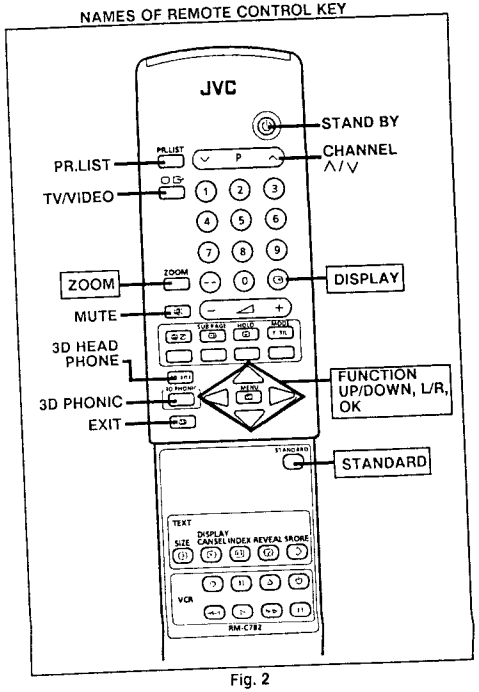


Fig. 2

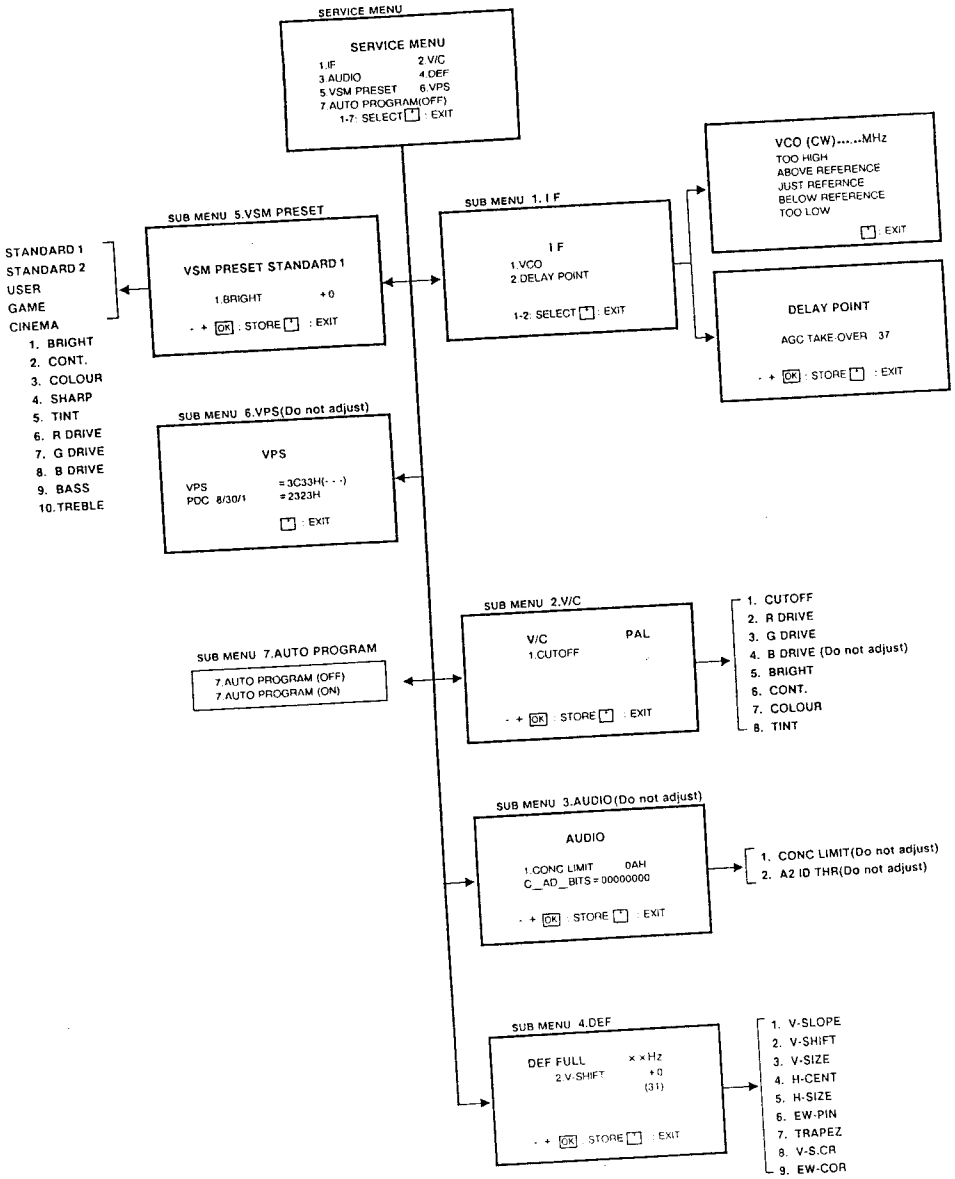


Fig. 3 SUB MENU SCREEN

(3) Method of Setting

1) Method of Setting **1. IF**

[1. VCO]

①	1 Key	Select **1.IF.**
②	1 Key	Select 1.VCO.
③	The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.	
④	DISPLAY Key	As you press this twice, you will return to the **SERVICE MENU.**

[2. DELAY POINT]

①	1 Key	Select **1.IF.**
②	2 Key	Select 2.DELAY POINT.
③	FUNCTION L/R	Set (adjust) the setting values of the setting items.
④	OK Key	Memorize the set value. (Before storing the setting values in memory, do not press the CH, TV / VIDEO, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
⑤	DISPLAY Key	When this is pressed twice, you will return to the SERVICE MENU.

2) Method of setting **2.V/C, 4.DEF and 5.VSM PRESET.**

①	2, 4, 5keys	Select one from **2. V/C, 4. DEF and 5. VSM PRESET.**
②	FUNCTION UP/DOWN key	Select setting items.
③	FUNCTION L/R key	Set (adjust) the setting values of the setting items.(When 1.CUTOFF of 2.V/C is selected, press its "L" or "R" key, and the whole screen will change to a faint horizontal line appearing in its center. Press the same "L" or "R" key again, and the screen will return to the original 1.CUTOFF screen.)
④	OK Key	Memorize the setting value. (Before storing the setting values in memory, do not press the CH, TV / VIDEO, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
⑤	DISPLAY Key	Return to the SERVICE MENU screen.

(4) Release of SERVICE MENU

1) After completings the setting, return to the SERVICE MENU, then again press the DISPLAY key.

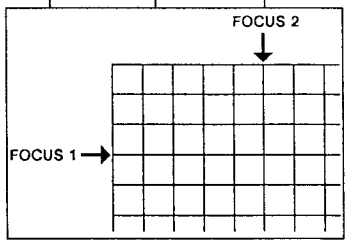
ADJUSTMENTS

B1 POWER SUPPLY CHECK

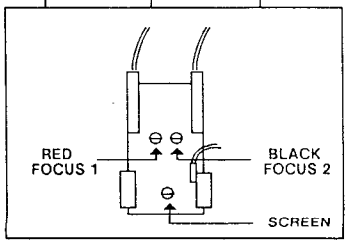
Item	Measuring instrument	Test point	Adjustment part	Description
B1 power supply check	Signal generator DC Volt-meter	TP-91 TP-E (⏚)		1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91 and TP-E(⏚). 3. Make sure that the voltage is DC143.2V ±2.0V.

FOCUS adjustment

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS Adjustment	Signal generator		FOCUS VR [In HVT]	• Select the ASPECT MODE to FULL. • Receive a cross-hatch signal. **[AV-28WX1EP]** 1. While observing the picture, turn the focus adjusting VR (a handle located at the upper part of HVT) so that the picture is adjusted within the range of an optimum focus position without distinct moiré. 2. Make sure that when the screen is darkened, the lines remain in good focus. **[AV-32WX1EP]** 1. By turning the black VR FOCUS 2, adjust the picture so that the 5th vertical line from the left side of the cross-hatch picture becomes thinnest. 2. By turning the red VR FOCUS 1, adjust the picture so that the 3rd horizontal line from the upper side of the cross-hatch picture becomes uniform at the line center and its periphery. 3. Carry out adjustment by repeating the steps 2 and 3 above. 4. Make sure that when the screen is darkened, the lines remain in good focus.



FOCUS adjustment



AV-32WX1EP HVT FOCUS VR

IF circuit adjustment : SUB MENU 1. IF

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VCO	Remote control unit		PIF CW PIF L-VL CW [MAIN PWB]	• **Do not make any adjustment unless the adjustment is out of way and you cannot get correct picture.** 1. Select 1.IF from the SERVICE MENU. 2. Select 1. VCO. 3. Receive any broadcast. In the VCO setting mode, the channels can be selected with the FUNCTION UP/DOWN key. 4. Turn the core of PIF CW transf. until the colour of the characters TOO HIGH displayed on the screen changes from blue to yellow. (The characters indicated by the yellow colour are showing the present value of the AFC voltage.) (Step 1) 5. Turn the core of PIF CW transf. until the colour of the characters TOO HIGH changes TOO LOW. (Step 2) 6. Then slowly turn back the core of PIF CW transf. until the colour of the characters JUST REFERENCE changes from blue to **yellow**. (Step 3) 7. Then, receive a SECAM L broadcast channel that the district can receive it. 8. Adjust the PIF L-VL CW trimmer capacitor same manner as above step and readjust the PIF CW trnsf. many times. 9. Press the DISPLAY key three times to return to the normal screen. 10. Perform CHANNEL PR again, and make sure that each broadcast is being received properly.

VCO (CW)·····MHz ← fv
TOO HIGH
ABOVE REFERENCE
JUST REFERENCE ← YELLOW
BELOW REFERENCE
TOO LOW
DISP. EXIT

Screen display	Step 1 → 2 → 3
TOO HIGH	Yellow → Blue → Blue
ABOVE REFERENCE	Blue → Blue → Blue
JUST REFERENCE	Blue → Blue → **Yellow**
BELOW REFERENCE	Blue → Blue → Blue
TOO LOW	Blue → **Yellow** → Blue

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of DELAY POINT (AGC)	Remote control unit		DELAY POINT (AGC TAKE-OVER)	1. Receive a black and white signal (colour off). 2. Select 1.IF from the SERVICE MENU. 3. Select 2.DELAY POINT by pressing the 2 key on the remote control unit. 4. Adjust the FUNCTION L/R key until video noise disappears. 5. Press the OK key and memorize the set value. 6. Turn to other channels and make sure that there are not irregularities.

Setting (adjustment) item	Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	0~63	30

AV-28WX1EP
AV-32WX1EP

VSM PRESET setting : SUB MENU 5. VSM PRESET

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET	Remote control unit		1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT 6. R DRIVE 7. G DRIVE 8. B DRIVE 9. BASS 10.TREBLE	1. Select 5.VSM PRESET from the SERVICE MENU. 2. Select STANDARD 1 mode with the STANDARD key. 3. Adjust the FUNCTION UP/DOWN and FUNCTION L/R key to bring the set values of 1.BRIGHT ~ 10.TREBLE to the values shown in the table . 4. Press the OK key and memorize the set value. 5. Select STANDARD 2 mode with the STANDARD key and set the value as same manner. 6. Then exit the SERVICE MENU by pressing the DISPLAY key, and enter to the MENU screen with the OK key. 7. Select the FEATURE item. 8. Select the CINEMA/GAME item, and set the each VSM mode for USER, CINEMA, GAME, and make similar adjustment as in 1 above.

Setting item \ VSM preset mode	STANDARD 1	STANDARD2	USER	CINEMA	GAME
1. BRIGHT	+0	+0	+0	+0	+2
2. CONT.	+17	+10	+12	+2	+2
3. COLOUR	+2	+0	+0	-2	+0
4. SHARP	+0	+0	+0	-2	-2
5. TINT	+0	+0	+0	+0	+0
6. R DRIVE	-7	+0	-13	+0	+0
7. G DRIVE	+0	+0	-3	-2	+0
8. B DRIVE	+0	+0	+0	-6	+0
9. BASS	+0	+0	+0	+6	+4
10.TREBLE	+0	+0	+0	+2	+0

SETTING VALUES OF VSM PRESET

VIDEO/CHROMA circuit adjustment : SUB MENU 2. V/C

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

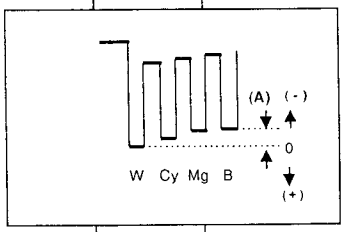
Setting (adjustment) item	Variable range	Initial setting value
1. CUTOFF	ON / OFF	OFF
2. R DRIVE	-31 ~ +32	+12
3. G DRIVE	-31 ~ +32	+2
4. B DRIVE (Do not adjust)	-31 ~ +32	+0 (Fixed)
5. BRIGHT	-31 ~ +32	+6
6. CONT.	-41 ~ +22	-5

Setting (adjustment) item \ Colour system		Variable range	PAL SECAM	NTSC
7. COLOUR initial setting value	TV	-31 ~ +32	+3	——
	Comp. VIDEO		——	+12
8. TINT initial setting value	Comp. VIDEO	-31 ~ +32	——	-2

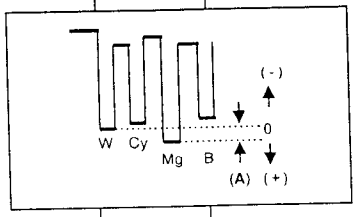
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low light)	Signal generator Remote control unit		R. CUT OFF VR G. CUT OFF VR B. CUT OFF VR [CRT SCT PWB] SCREEN VR [In HVT]	1. Receive a black and white signal (colour off). 2. Select 2.V/C from the SERVICE MENU. 3. Select 1.CUT OFF with the FUNCTION UP/DOWN key. 4. Shown one horizontal line with the FUNCTION L/R key. With the SCREEN VR, adjust so that the horizontal line will not be too bright. 5. Turn the CUT OFF VR respectively for R, G and B fully to the left (to the left direction when seen from the rear). 6. Gradually turn the SCREEN VR from the left end to the right direction to bring one of the red, green and blue colours faintly visible. 7. By adjusting the CUT OFF VR, bring out the other 2 colours and make one horizontal line visible in white 8. Turn the SCREEN VR and bring one white horizontal line faintly visible. 9. Turn 1.CUTOFF off.
Adjustment of WHITE BALANCE (High light)	Signal generator Remote control unit		2. R DRIVE 3. G DRIVE 4. B DRIVE (Do not adjust)	1. Receive a black and white signal (colour off). 2. Select 2.V/C with the SERVICE MENU. 3. Select 2.R DRIVE and 3.G DRIVE with the FUNCTION UP/DOWN key. 4. Change the screen colour to white with the FUNCTION L/R key. 5. Press the OK key, and memorize the respectively set values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	Remote control unit		5. BRIGHT	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.BRIGHT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION L/R key. 5. If the brightness is not the best with the initial set value, make fine adjustment until you get the best brightness. 6. Press the OK key and memorize the set value.
Adjustment of SUB CONT.	Remote control unit		6. CONT.	1. Receive any broadcast. 2. Select 2.V/C with the SERVICE MENU. 3. Select 6.CONT. with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION L/R key. 5. If the contrast is not the best with the initial set value, make fine adjustment until you get the best contrast. 6. Press the OK key and memorize the set value.
Adjustment of SUB COLOUR I	Remote control unit		7. COLOUR	**[Method of adjustment without using measuring equipment]**
			PAL COLOUR	**(PAL COLOUR)** 1. Receive a PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 7.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION L/R key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the OK key and memorize the set value.
			SECAM COLOUR	**(SECAM COLOUR)** 7. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR as previously.
			NTSC 3.58 COLOUR	**(NTSC 3.58 COLOUR)** 8. Input NTSC3.58MHz COMPOSITE VIDEO signal from the EXT terminal. 9. Make similar fine adjustment of NTSC3.58 COLOUR as previously.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E(⏚) [CRT SCT PWB]	7. COLOUR	**[Method of adjustment using measuring equipment]**
			PAL COLOUR	**(PAL COLOUR)** 1. Receive a PAL full field colour bar signal (75% white). 2. Select 2.V/C from SERVICE MENU. 3. Select 7.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION L/R key. 5. Connect the oscilloscope between TP-47B and TP-E. 6. Adjust PAL COLOUR and bring the value of **(A)** in the illustration to -12V (voltage difference between white (W) and blue (B)). 7. Press the OK key and memorize the setting value.
			SECAM COLOUR	**(SECAM COLOUR)** 1. Receive a SECAM full field colour bar signal (75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION L/R key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to 0V (Voltage difference between white and blue). 4. Press the OK key and memorize the set value.
			NTSC 3.58 COLOUR	**(NTSC 3.58 COLOUR)** 1. Input NTSC3.58MHz COMPOSITE VIDEO signal (full field colour bar 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC3.58 COLOUR with the FUNCTION L/R key. 3. **[For 28 inch]** Adjust NTSC3.58 COLOUR and bring the value of (A) of the illustration to -5V (voltage difference between white (W) and blue (B)). **[For 32 inch]** Adjust the value of NTSC3.58 COLOUR to 0V. 4. Press the OK key and memorize the set value.
				NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB TINT I	Remote control unit		8. TINT	**[Method of adjustment without using measuring equipment]**
			NTSC 3.58 TINT	**(NTSC 3.58 TINT)** 1. Input COMPOSITE VIDEO signal of NTSC3.58MHz from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION L/R key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the OK key and memorize the set value. **(NTSC 4.43 TINT)** When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of SUB TINT II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E(⏚) [CRT SCT PWB]	8. TINT	**[Method of adjustment using measuring equipment]**
			NTSC 3.58 TINT	**(NTSC 3.58 TINT)** 1. Input COMPOSITE VIDEO signal (full field colour bar 75% white) of NTSC3.58MHz from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION L/R key. 5. Connect the oscilloscope to TP-47B. 6. Adjust NTSC3.58 TINT to bring the value of **(A)** of the illustration to 0V (voltage difference between white (W) and magenta (Mg)). 7. Press the OK key and memorize the setting value. **(NTSC 4.43 TINT)** When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



DEFLECTION circuit adjustment : SUB MENU 4. DEF

- There is a 14 different adjustments (FULL / 16:9 TOP / 14:9 TOP / REGULAR / PANORAMIC / 16:9 ZOOM & 14:9 ZOOM) to be made by VERTICAL FREQUENCY and AUTO ASPECT modes in total for the adjustment of deflection circuit.

- **When the 50Hz / FULL MODE has been established, the setting of other modes will be done automatically. However, of the picture quality has not been optimized, adjust each mode again, respectively.**
- **The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial set values.**

[AV-28WX1EP]

INITIAL SETTING VALUE LIST

ADJUSTMENT ITEM	ADJUSTMENT NAME	VARIABLE RANGE	FULL		16:9 TOP		14:9 TOP	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SLOPE	Vertical height	-31~+32	32	-1	+27	+0	+16	+0
2. V-SHIFT	Vertical center	-31~+32	26	+0	+13	+0	+1	-1
3. V-SIZE	Vertical height	-31~+32	26	-1	+13	-1	+7	-1
4. H-CENT	Horizontal center	-31~+32	22	+11	-1	+11	+0	+11
5. H-SIZE	Horizontal width	-31~+32	49	+0	+0	+0	-4	+0
6. EW-PIN	Side pin correction	-31~+32	14	+0	+3	+2	+1	+0
7. TRAPEZ	Trapezoidal distortion correction	-31~+32	29	-1	-7	-2	+0	+1
8. V-S.CR	Vertical height correction	-31~+32	10	+0	+5	+0	+0	+0
9. EW-COR	Side pin four corner correction	-31~+32	5	+0	-1	+5	+5	+0

ADJUSTMENT ITEM	ADJUSTMENT NAME	VARIABLE RANGE	REGULAR		PANORAMIC		16:9 ZOOM		14:9 ZOOM	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SLOPE	Vertical height	-31~+32	+0	-1	+0	-1	+0	-1	+0	-1
2. V-SHIFT	Vertical center	-31~+32	+0	+0	+4	+0	+0	+0	+2	+0
3. V-SIZE	Vertical height	-31~+32	+0	+0	+4	-1	+7	-1	-13	+0
4. H-CENT	Horizontal center	-31~+32	+0	+11	+0	+11	+0	+10	+0	+11
5. H-SIZE	Horizontal width	-31~+32	-10	+0	+5	+0	+0	-1	-4	+0
6. EW-PIN	Side pin correction	-31~+32	+0	+0	+4	+0	+2	-1	-3	-1
7. TRAPEZ	Trapezoidal distortion correction	-31~+32	+0	+2	-1	+1	-1	+0	+1	+1
8. V-S.CR	Vertical height correction	-31~+32	+0	+0	+13	+0	-4	+0	+0	+0
9. EW-COR	Side pin four corner correction	-31~+32	+12	+0	+18	+10	+2	+0	+5	+0

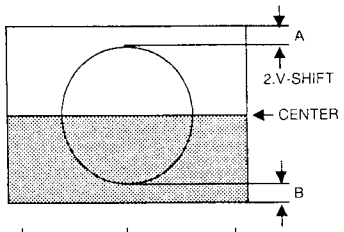
[AV-32WX1EP]

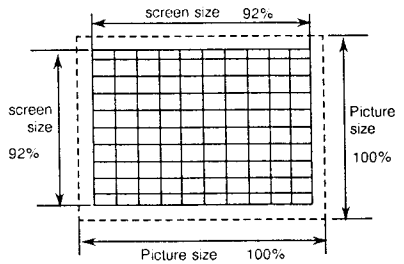
INITIAL SETTING VALUE LIST

ADJUSTMENT ITEM	ADJUSTMENT NAME	VARIABLE RANGE	FULL		16:9 TOP		14:9 TOP	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SLOPE	Vertical height	-31 ~ +32	31	-1	+33	-1	+24	+0
2. V-SHIFT	Vertical center	-31 ~ +32	30	+2	+5	+1	-8	-1
3. V-SIZE	Vertical height	-31 ~ +32	33	+2	+12	+0	-1	-1
4. H-CENT	Horizontal center	-31 ~ +32	23	+10	-1	+12	-1	+12
5. H-SIZE	Horizontal width	-31 ~ +32	48	+0	+0	+0	-6	+0
6. EW-PIN	Side pin correction	-31 ~ +32	25	+2	+5	+2	+1	+1
7. TRAPEZ	Trapezoidal distortion correction	-31 ~ +32	30	-1	-6	-4	+5	-1
8. V-S.CR	Vertical height correction	-31 ~ +32	12	+0	+2	-1	+2	+0
9. EW-COR	Side pin four corner correction	-31 ~ +32	36	+0	+9	+0	+3	+1

ADJUSTMENT ITEM	ADJUSTMENT NAME	VARIABLE RANGE	REGULAR		PANORAMIC		16:9 ZOOM		14:9 ZOOM	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SLOPE	Vertical height	-31 ~ +32	+0	-1	+0	-1	+0	-1	+0	-1
2. V-SHIFT	Vertical center	-31 ~ +32	+0	+0	+4	+1	+2	+1	+4	+0
3. V-SIZE	Vertical height	-31 ~ +32	+1	-1	+2	+0	-8	+0	-28	-1
4. H-CENT	Horizontal center	-31 ~ +32	+2	+9	+0	+10	-1	+12	-1	+12
5. H-SIZE	Horizontal width	-31 ~ +32	-13	+0	+1	+0	+0	+0	-6	+0
6. EW-PIN	Side pin correction	-31 ~ +32	+1	+0	+7	+0	-2	+1	-8	+1
7. TRAPEZ	Trapezoidal distortion correction	-31 ~ +32	+1	+2	-2	+0	-3	+0	+0	-1
8. V-S.CR	Vertical height correction	-31 ~ +32	+0	+0	+10	+0	+0	+0	+0	+0
9. EW-COR	Side pin four corner correction	-31 ~ +32	+3	+4	+21	+0	+5	+0	-5	-1

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VERTICAL SLOPE	Signal generator Remote control unit		1. V-SLOPE V BLK SW	• Select the ASPECT MODE to FULL. At that time, if there are any missing sections in the upper and the lower parts of the screen, adjust them by turning the BLK switch in the MAIN PWB in order to obtain an optimal screen with minimum missing sections. 1. Receive a circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SLOPE with the FUNCTION UP / DOWN key. 4. Set the initial setting value of V-SLOPE (50Hz mode) with the FUNCTION L / R key. 5. Adjust V-SLOPE and make the screen's center line and the blanking line coincide. 6. Press the OK key and memorize the set value.
Adjustment of VERTICAL SHIFT			2. V-SHIFT	7. Select 2.V-SHIFT and set the initial setting value. 8. Adjust V-SHIFT to make **A = B** as shown in figure above. 9. Press the OK key and memorize the set value.
Adjustment of VERTICAL SIZE			3. V-SIZE	10. Receive a cross-hatch signal. (fv = 50Hz) 11. Adjust 3.V-SIZE and set the initial setting value. 12. Adjust V-SIZE and make the vertical screen size 92% of the picture size. 13. Press the OK key and memorize the set value. 14. When the deflection of vertical center is more than about 5mm, adjust the picture in the upward and downward directions by 3. V-SIZE. (The value within about 5mm is tolerable.) 15. When adjusted in the 50Hz / FULL mode, other mode will be automatically set. 16. Press the OK key and memorize the set value.



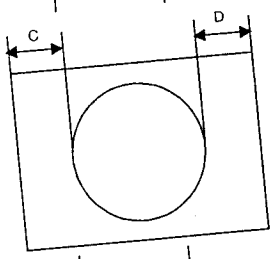


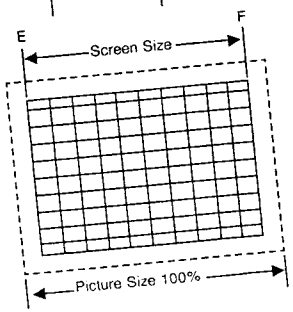
[FULL MODE]

MODE	FULL	16:9 TOP	14:9 TOP	REGULAR	PANORAMIC	16:9 ZOOM	14:9 ZOOM
SCREEN TOP	92%	90%	90%	92%	87%	70%	80%
SCREEN BOTTOM	92%	50%	70%	92%	87%	70%	80%

[SCREEN SIZE]

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of H. CENTER			4. H-CENT	• Select the ASPECT MODE to FULL. 1. Receive a circle pattern signal. (fv = 50Hz) 2. Select 4. DEF from SERVICE MENU. 3. Select 4.H-CENT and set the initial setting value. 4. Set H-CENT initial setting value by press the FUNCTION L / R key. 5. Adjust H-CENT to make C = D. 6. Press the OK key and memorize the set value.
Adjustment of H. SIZE			5. H-SIZE	7. Receive a cross-hatch signal. (fv = 50Hz) 8. Select 5.H-SIZE and set the initial setting value. 9. Adjust H-SIZE and make the horizontal screen size 92% of the picture size. 10. Press the OK key and memorize the set value. 11. When adjusted in the 50Hz/FULL mode, other mode will be automatically set. 12. Press the OK key and memorize the set value.



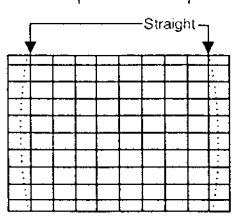


MODE	FULL	16:9 TOP	14:9 TOP	REGULAR	PANORAMIC	16:9 ZOOM	14:9 ZOOM
AV-28WX1EP	92%	92%	500mm	430mm	95%	92%	500mm
AV-32WX1EP	92%	92%	570mm	500mm	95%	92%	570mm

[SCREEN SIZE]

※ REGULAR, 14:9 TOP and 14:9 ZOOM MODE shown between E and F length.

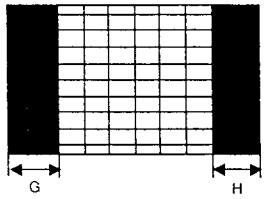
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of EW-PIN			6. EW-PIN	• Select the ASPECT MODE to FULL. 1. Receive a cross-hach signal(fv = 50Hz). 2. Select 4.DEF from SERVICE MENU. 3. Select 6.EW-PIN and set the initial setting value. 4. Set EW-PIN initial setting value by press the FUNCTION L / R key. 5. Adjust EW-PIN and make the 2nd vertical lines at the left and right edges of the screen straight. Also make sure that the 2nd vertical lines are also straight. 6. Press the OK key and memorize the set values.
Adjustment of TRAPEZ			7. TRAPEZ	7. Select 7.TRAPEZ and set the initial setting value. 8. Adjust TRAPEZ and bring the vertical lines at the right and left edges of the screen in parallel. 9. Press the OK key and memorize the set values.
Adjustment of V-S. CR			8. V-S. CR	10. Select 8.V-S. CR and set the initial setting values. 11. Adjust V-S. CR and make the gaps between the horizontal lines same. 12. Press the OK key and memorize the set values.
Adjustment of EW-COR			9. EW-COR	13. Select 9.EW-COR and set the initial setting values. 14. Adjust EW-COR and make the vertical lines at the four corners of the screen straight. 15. Press the OK key and memorize the set values.
				16. When adjusted in the 50Hz/FULL mode, other mode will be automatically set. 17. Make sure that the adjustment is properly done on the screen of 60Hz signal. Also make sure that the adjusted value falls within the tolerance in each ASPECT MODE. If the adjustment has not been done properly, adjust it in the same manner as for above.



BLANKING adjustment

Item	Measuring instrument	Test point	Adjustment part	Description
H BLANKING adjustment	Signal generator Remote control unit		H BLK cap.	• Set the ASPECT MODE to REGULAR. 1. Receive a crosshatch signal. (fv = 50Hz) 2. Refer to the figure and adjust the H BLK capacitor to equalize widths G and H (G = H). If there are any missing sections of the screen, adjust them by turning the V BLK SW in order to obtain an optimal screen with minimum missing sections at the last again.

[REGULAR MODE]



AUDIO circuit adjustment : SUB MENU 3. AUDIO

- Do not touch 3.AUDIO (1. CONC LIMIT, 2. A2 ID THR) of the SERVICE MENU as it requires no adjustment.

Setting (adjustment) item	Variable range	Initial setting value (fixed)
1. CONC LIMIT (Do not adjust)	00H~FFH	0AH
2. A2 ID THR (Do not adjust)	00H~FFH	19H

VPS monitor display : SUB MENU 6. VPS

- Do not touch 6. VPS monitor of the SERVICE MENU as it requires no.

AV-28WX1EP/AV-32WX1EP STANDARD CIRCUIT DIAGRAM

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal :PAL Colour bar signal
(2)Setting positions of each knob/button and variable resistor :Original setting position when shipped
(3)Internal resistance of tester :DC 20kΩ/V
(4)Oscilloscope sweeping time :H ⇒20μS/div
:V ⇒5mS/div
:Others ⇒ Sweeping time is specified
(5)Voltage values :All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

•In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

•Resistance value
No unit :[Ω]
K :[KΩ]
M :[MΩ]
•Rated allowable power
No indication :1/6[W]
Others :As specified
•Type
No indication :Carbon resistor
OMR :Oxide metal film resistor
MFR :Metal film resistor
MPR :Metal plate resistor
UNFR :Uninflammable resistor
FR :Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

•Capacitance value
1or higher :[pF]
less than 1 :[μF]
•Withstand voltage
No indication :DC50[V]
Others :DC withstand voltage[V]
AC indicated :AC withstand voltage[V]

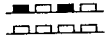
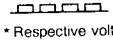
* Electrolytic Capacitors
47/50[Example]:Capacitance value[μF]/withstand voltage[V]

•Type
No indication :Ceramic capacitor
MY :Mylar capacitor
MM :Metalized mylar capacitor
PP :Polypropylene capacitor
MPP :Metalized polypropylene capacitor
MF :Metalized film capacitor
TF :Thin film capacitor
BP :Bipolar electrolytic capacitor
TAN :Tantalum capacitor

(3)Coils

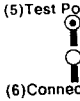
No unit :[μH]
Others :As specified

(4)Power Supply

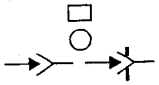
:B1
:B2(12V)
 :8V
 :5V

* Respective voltage values are indicated.

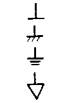
(5)Test Point


: Test point
: Only test point display

(6)Connecting method


: Connector
: Wrapping or soldering
: Receptacle

(7)Ground symbol


: LIVE side ground
: ISOLATED(NEUTRAL) side ground
: EARTH ground
: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

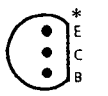
(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

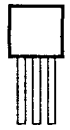
◇Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

1. SEMICONDUCTOR SHAPES (* = Bottom view)

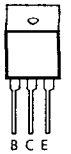
TRANSISTORS



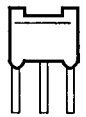
2SA1013(0)
2SA673(C)
2SC2240(GB)
2SC1906
2SA966(0Y)-T
2SC1815(YG)
2SC2482(C1)
2SC4722(NP)
2PA1015(YG)
2PC1815(YG)



2SA933AS(QR)
2SA933S(QR)
2SC1740S(QR)
2SC2785(JH)
DTC124ESA-T
DTC323TS

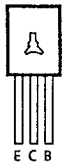


2SD1554-C1
2SD1878-YD
2SD1876-YD
BU2506DX
MTA2N60E
2SC4544-C1

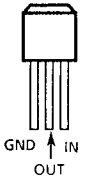


2SC4502
2SC5082(L-P)
2SC5083(L-P)

2SK301(Q)
BSN274



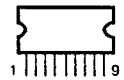
2SC2371(MLK)
2SC3271(NP)

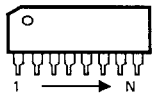


DTC144ESA
DTA144GS
DTC144ES
DTA144ES

ICs

TDA8351 / N3





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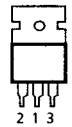
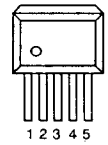
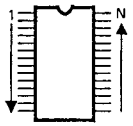


S1854-C1
S1854-C2



LA7975



MSP3410-SDIL
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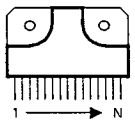
P83C654FBP / 541
MN1873237JKH6
M52343SP
M37102M8-C41SP



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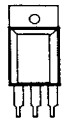
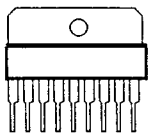
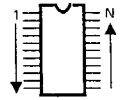
UPC1488H
LA7837
TA8200AH



KIA7805PI AN7805F
KIA7808PI AN78N12
AN78M05



AN5265



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LA7577N M52325P
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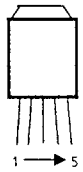
U3660M-B BU4066BC
TDA4665



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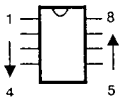

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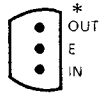
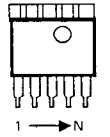
AT24C16-10PC
ST93C46AB1

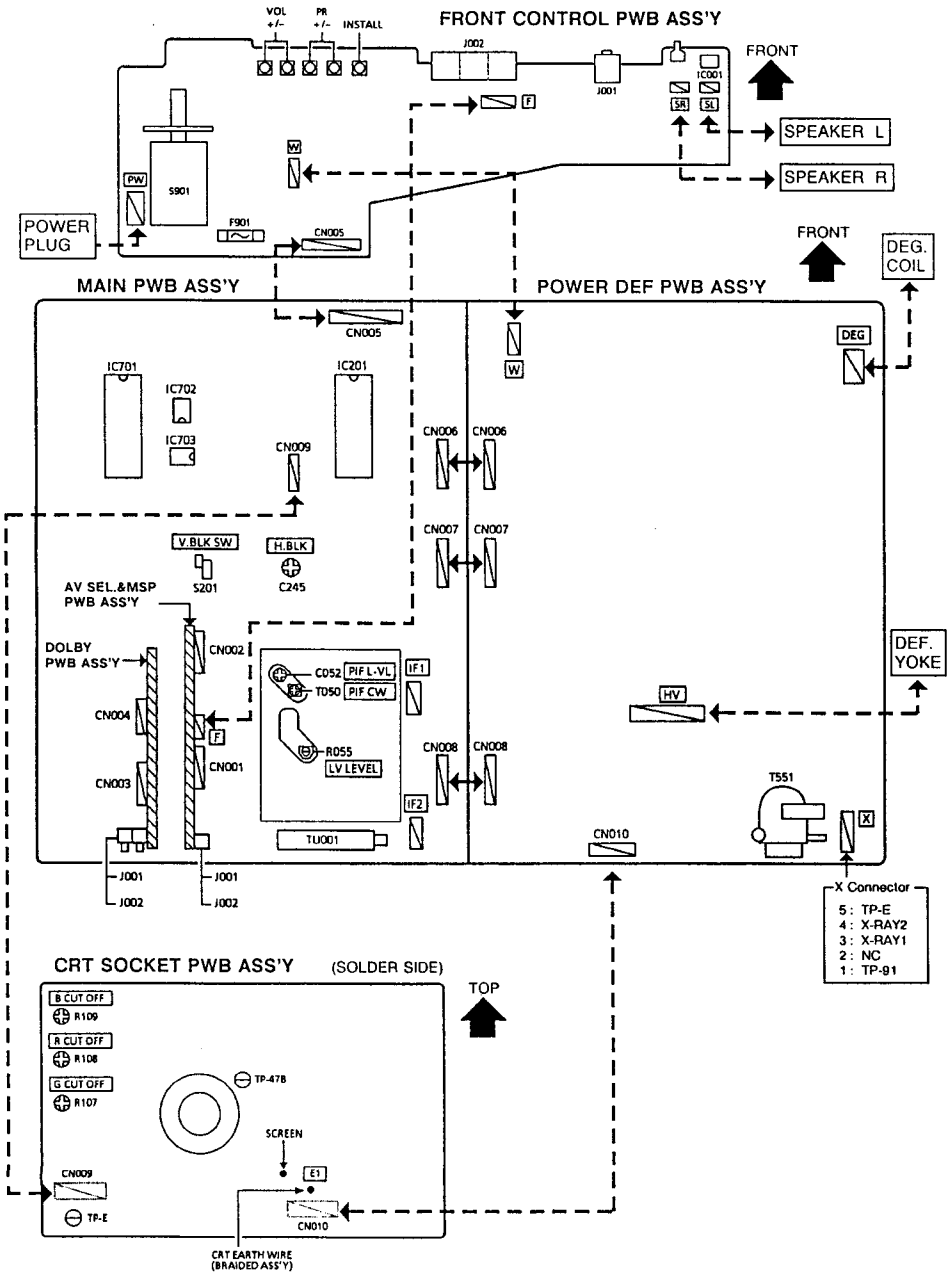


KIA78L08BP

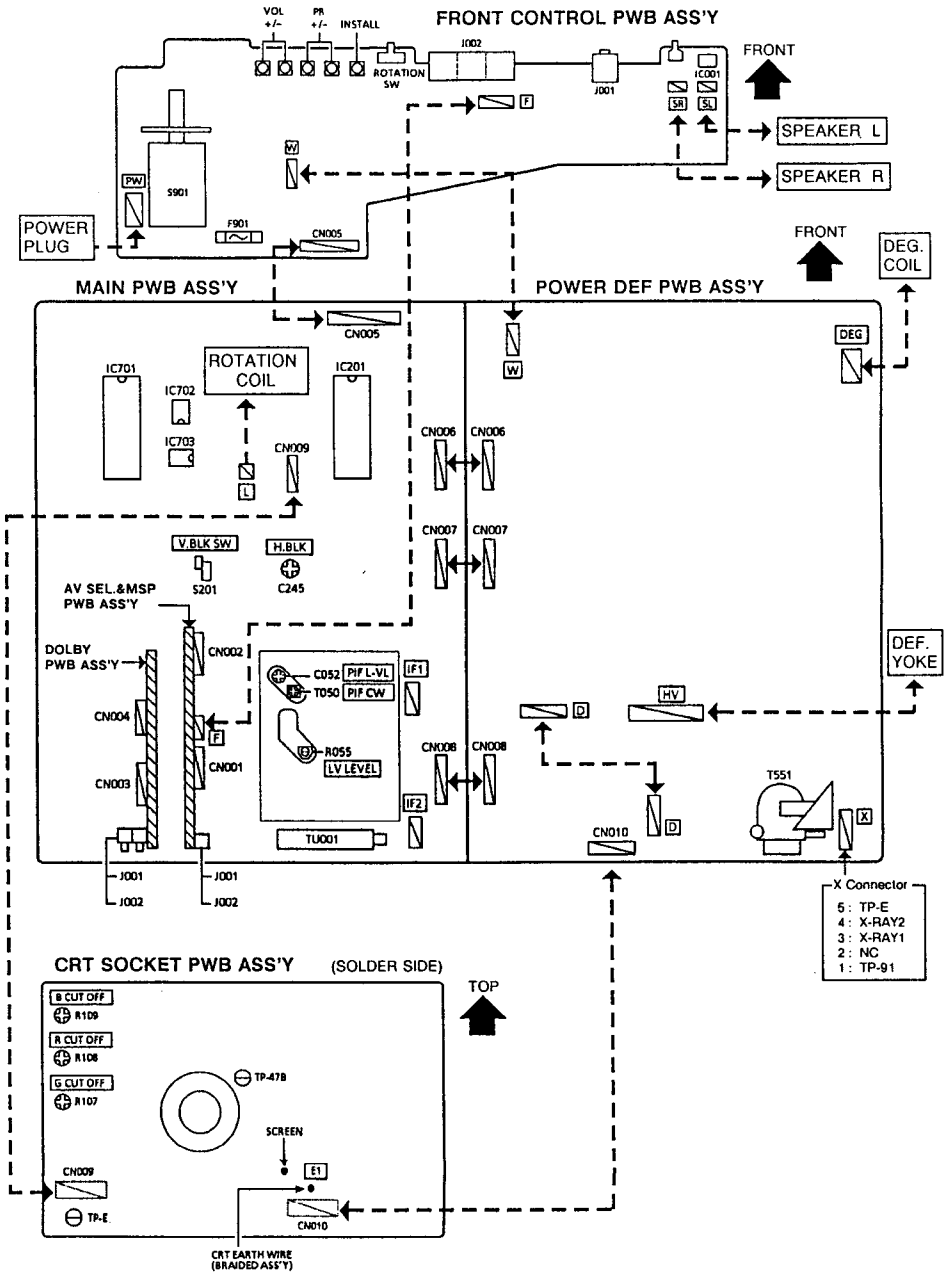


STR-S6707
STR-S6706

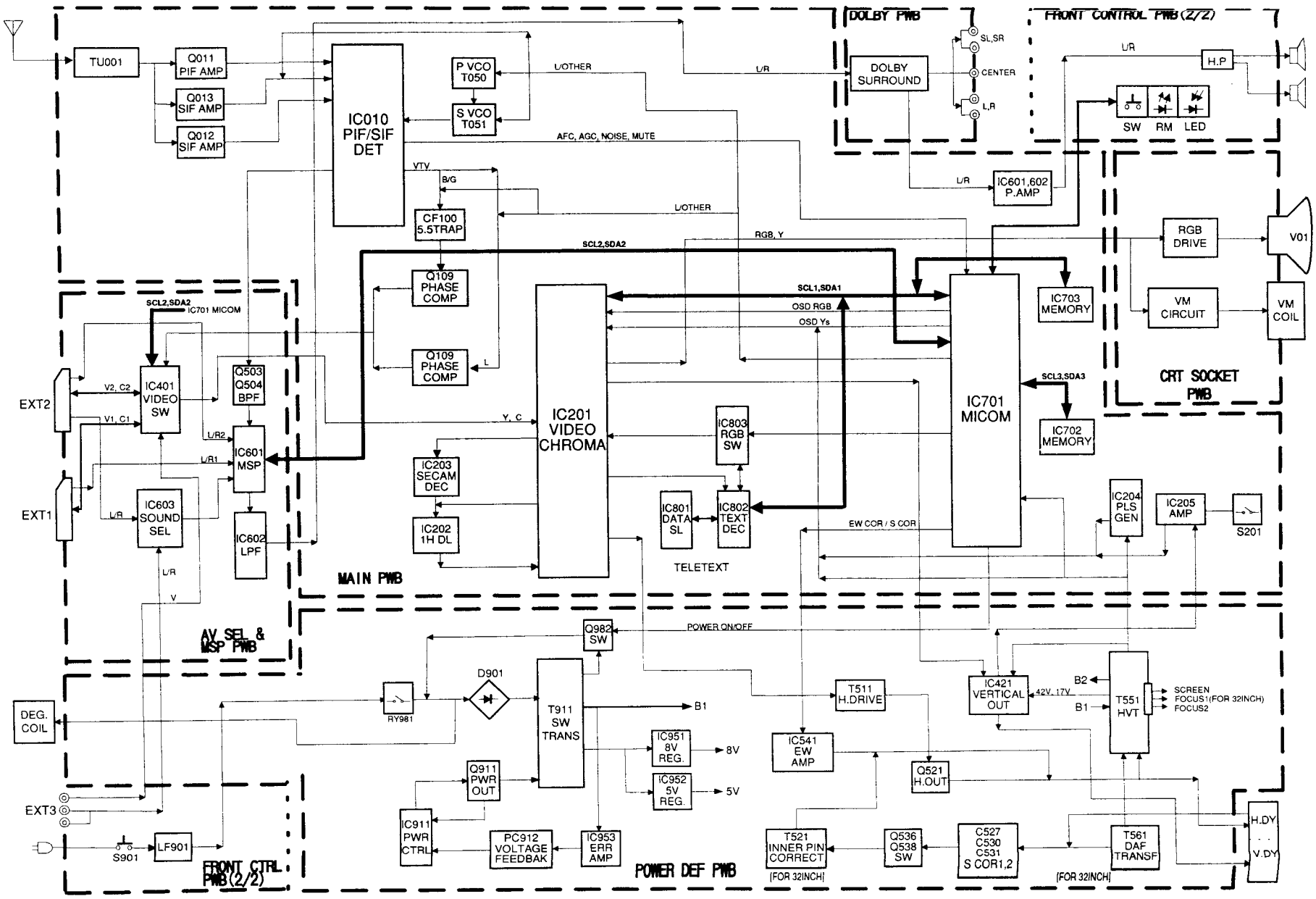
2-1. MAIN PARTS LOCATION AND ALIGNMENTS LOCATION [28INCH]



2-2. MAIN PARTS LOCATION AND ALIGNMENTS LOCATION [32INCH]



3. BLOCK DIAGRAM



VOLTAGE OF AV SEL. & MSP PWB CIRCUIT DIAGRAM

IC401

	[V]		[V]
1	4.8	11	4.6
2	5.0	12	0.8
3	4.8	13	5.1
4	5.0	14	5.1
5	4.8	15	4.3
6	4.8	16	5.1
7	0	17	5.4
8	4.8	18	5.1
9	9.6	19	0
10	4.2	20	4.8

IC601

	[V]		[V]		[V]		[V]
1	0.2	17	1.6	33	3.7	49	3.7
2	0	18	4.2	34	3.7	50	0
3	0	19	0	35	0	51	3.7
4	0	20	1.9	36	3.7	52	3.7
5	0	21	4.7	37	3.8	53	3.7
6	0	22	1.9	38	7.0	54	2.6
7	4.2	23	1.9	39	8.0	55	3.7
8	0	24	5.0	40	6.2	56	0
9	3.3	25	0.1	41	0	57	5.0
10	2.7	26	0.1	42	3.7	58	1.5
11	1.7	27	0	43	3.7	59	1.5
12	2.3	28	1.9	44	3.7	60	1.6
13	2.6	29	1.9	45	3.7	61	0
14	2.6	30	0	46	3.7	62	2.5
15	2.7	31	3.7	47	3.7	63	1.7
16	2.5	32	3.7	48	0	64	2.8

IC602

	[V]
1	6.1
2	6.1
3	6.1
4	0
5	6.1
6	6.1
7	6.1
8	12.2

IC603

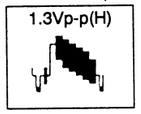
	[V]		[V]
1	6.0	9	0
2	0	10	12.2
3	6.0	11	0
4	0	12	6.0
5	6.0	13	6.0
6	0	14	6.0
7	0	15	0
8	0	16	12.3

TRANSISTORS [V]

Q	E	C	B	Q	E	C	B
Q101	4.4	10.6	5.1	Q401	2.2	5.0	0
Q102	3.6	12.2	4.2	Q402	5.0	1.5	0
Q103	0	0.2	0	Q403	4.4	12.3	5.1
Q104	0	0.2	0	Q503	4.7	12.2	5.4
Q105	3.9	0	3.2	Q504	2.5	5.4	0.1
Q201	3.1	9.9	3.8	Q601	0	12.2	0
Q202	5.7	3.8	5.0	Q602	0	0	0
Q203	0	0	0	Q603	0	0.7	0
Q204	0	0	0				

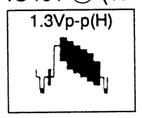
[28"]

IC401 ⑪ (TP-12)



[32"]

IC401 ⑪ (TP-12)



MAIN PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : MAIN PWB PATTERN page 3-35～3-38.

MAIN PWB ASS'Y
SJD-1001A-U2 (1/2).....28"
SJD-1002A-U2 (1/2).....32"

NOTE

*1: 2SC1815(YG)-T
*2: 2SA1015(YG)-T
*3: 1SS133-T2
*4: DTC124ES-T
*5: 1SS95-T5
×: NON MOUNT (OPEN)
BW: BUS WIRE

DIFFERENCES LIST

*	SJD-1001A-U2	SJD-1002A-U2
R254	39K	47K
R255	2.7K	2.7K
R256	27K	27K
R257	5.6K	8.2K
R258	×	47K
R259	2.2K	3.3K
R260	×	27K
R261	12K	5.6K
R262	22K	12K
R601	10K	15K
R610	3.9K	10K
⚠ R611	QRV141F-1692AY	QRV141F-1502AY
⚠ R616	QRV141F-2741AY	QRV141F-2211AY
R617	2.2K	8.2K
R622	1.8M	1M
R223	×	1M
C215	0	1/50
R602	10K	22K

VOLTAGE OF MAIN PWB CIRCUIT DIAGRAM (1/2)

IC010

	[V]		[V]
1	3.1	19	6.0
2	2.7	20	0
3	4.1	21	7.5
4	6.9	22	3.3
5	0	23	1.7
6	0	24	2.1
7	0.2	25	7.7
8	2.0	26	7.7
9	9.0	27	0
10	0	28	4.4
11	1.9	29	9.0
12	1.9	30	7.8
13	1.9	31	7.8
14	4.3	32	4.7
15	9.0	33	5.4
16	4.2	34	6.0
17	8.5	35	5.0
18	7.6	36	5.0

IC201

	[V]		[V]		[V]		[V]
1	1.9	14	0.7	27	4.7	40	2.6
2	4.0	15	3.4	28	2.6	41	0.7
3	3.3	16	3.4	29	1.7	42	0
4	2.9	17	3.4	30	1.6	43	3.1
5	6.6	18	7.0	31	3.9	44	3.7
6	3.9	19	3.3	32	3.9	45	0
7	3.7	20	3.3	33	2.5	46	4.5
8	8.0	21	3.4	34	2.5	47	2.2
9	0	22	4.6	35	4.7	48	2.2
10	0	23	3.4	36	1.5	49	1.9
11	0	24	3.4	37	8.0	50	3.8
12	3.7	25	3.4	38	3.1	51	3.9
13	4.0	26	0.2	39	0.6	52	2.7

IC202

	[V]
1	4.9
2	0.2
3	0
4	0
5	0.3
6	0.1
7	3.9
8	0
9	4.9
10	0
11	2.9
12	2.9
13	0
14	0.9
15	0.1
16	0.9

IC203

	[V]
1	1.5
2	1.2
3	7.9
4	0.2
5	0.2
6	0
7	3.3
8	4.2
9	1.6
10	1.7
11	0.1
12	0.1
13	0.1
14	0.1
15	0.6
16	3.1

IC204

	[V]
1	0
2	2.8
3	7.9
4	0.3
5	8.0
6	7.3
7	0.5
8	0
9	7.9
10	0
11	0
12	0.6
13	7.9
14	7.8
15	0
16	7.9

IC205

	[V]
1	3.9
2	5.1
3	5.1
4	7.9
5	3.9
6	5.9
7	0.4
8	0
9	3.9
10	1.6
11	0
12	1.8
13	1.8
14	0

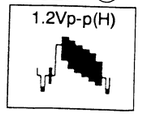
TRANSISTORS [V]

Q	E	C	B
Q010	1.3	12.2	2.0
Q011	1.2	11.1	2.0
Q012	1.7	12.8	2.4
Q013	1.7	11.2	2.4
Q020	9.0	12.2	9.7
Q050	0	6.0	0.1
Q051	0	1.7	0.1
Q080	5.2	12.2	5.8
Q101	2.6	12.2	3.3
Q102	3.9	0	3.3
Q103	0	4.0	0.1
Q104	3.3	8.9	3.9
Q106	2.6	12.2	3.3
Q107	0.1	0	3.3
Q108	0	0.1	8.7
Q109	0	12.2	0.1
Q110	2.6	12.2	0

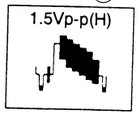
Q	E	C	B
Q120	0	0	3.6
Q121	0	7	0
Q122	0	0.1	3.6
Q123	0	12.2	0.1
Q124	0	8.7	0.1
Q201	2.9	0	2.2
Q202	2.1	11.6	2.6
Q203	12.2	3.7	11.6
Q204	3.7	12.2	4.4
Q205	1.5	12.2	2.1
Q206	4.4	0	3.7
Q207	0	3.0	0.1
Q210	0	0	5.0
Q211	0	0	0.6
Q301	3.1	11.1	3.7
Q302	3.1	12.2	3.2
Q303	11.6	7.0	11.1

Q	E	C	B
Q401	2.2	2.2	0.1
Q402	0	12.2	12.2
Q501	0	7.8	0.2
Q502	7.9	1.9	7.9
Q601	4.0	8.0	4.6
Q602	7.4	12.1	8.0
Q706	0	0	3.7

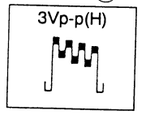
IC201 ⑦
1.2Vp-p(H)



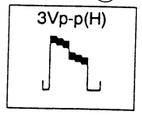
IC201 ⑬
1.5Vp-p(H)



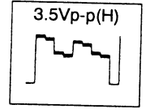
IC201 ⑲
3Vp-p(H)



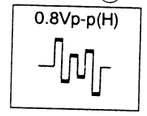
IC201 ⑳
3Vp-p(H)



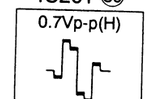
IC201 ㉑
3.5Vp-p(H)



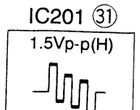
IC201 ㉙
0.8Vp-p(H)



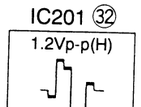
IC201 ㉚
0.7Vp-p(H)



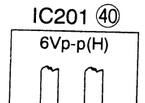
IC201 ㉛
1.5Vp-p(H)



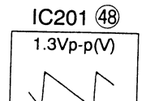
IC201 ㉜
1.2Vp-p(H)



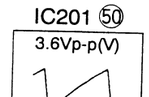
IC201 ㊵
6Vp-p(H)



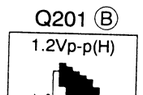
IC201 ㊽
1.3Vp-p(V)



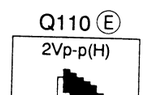
IC201 ㊿
3.6Vp-p(V)



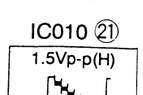
Q201 Ⓑ
1.2Vp-p(H)



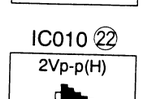
Q110 Ⓔ
2Vp-p(H)



IC010 ㉑
1.5Vp-p(H)



IC010 ㉒
2Vp-p(H)



VOLTAGE OF MAIN PWB CIRCUIT DIAGRAM (2/2)

IC601

	[V]
1	0
2	19.2
3	0
4	0
5	0
6	0
7	0

IC602

	[V]
1	0
2	19.2
3	0
4	0
5	0
6	0
7	0

IC701

	[V]		[V]		[V]		[V]
1	4.1	17	0.2	33	5.0	49	0
2	4.8	18	5.0	34	4.3	50	5.0
3	5.0	19	4.9	35	4.2	51	4.0
4	0	20	0.2	36	5.0	52	0.1
5	0.1	21	0.1	37	0	53	0.1
6	5.0	22	0.1	38	0	54	0.1
7	2.2	23	0.7	39	0	55	3.6
8	0.1	24	5.0	40	5.0	56	0.1
9	1.3	25	0.1	41	5.0	57	4.2
10	0.1	26	0.1	42	5.0	58	0.1
11	0.2	27	0.1	43	2.1	59	5.0
12	3.7	28	0	44	0.1	60	5.0
13	0.1	29	0	45	5.0	61	0.1
14	3.6	30	2.2	46	3.7	62	0.1
15	5.0	31	2.2	47	2.9	63	0.1
16	0.2	32	0	48	0.1	64	0.1

IC702

	[V]
1	0
2	0
3	0
4	0
5	5.0
6	5.0
7	1.8
8	5.0

IC703

	[V]
1	0
2	0
3	0
4	0
5	2.6
6	3.2
7	3.6
8	5.0

IC704

	[V]
1	12.8
2	5.8
3	0
4	5.0
5	5.0

IC801

	[V]		[V]
1	2.3	11	0
2	2.6	12	0
3	1.0	13	0
4	0	14	0
5	2.3	15	0.3
6	2.9	16	5.0
7	4.9	17	0.2
8	1.5	18	0
9	0	19	4.5
10	1.6	20	0

IC802

	[V]		[V]
1	4.9	15	0.2
2	3.0	16	5.0
3	3.0	17	3.2
4	5.0	18	2.6
5	5.0	19	0
6	0.2	20	0
7	0	21	5.0
8	0	22	0
9	5.0	23	0
10	0	24	0
11	0	25	1.3
12	4.5	26	1.3
13	0	27	0
14	0	28	2.5

IC803

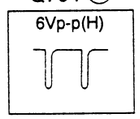
	[V]
1	0.4
2	2.2
3	0.8
4	2.2
5	2.2
6	0
7	0
8	0
9	0
10	0
11	0
12	2.2
13	0.8
14	2.2
15	2.2
16	5.0

TRANSISTORS [V]

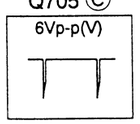
Q	E	C	B
Q610	13.2	0	13.6
Q611	0.1	0	0
Q612	0	0	0
Q613	0	0	3.7
Q614	0	0	0
Q615	0	0	0
Q616	0	0	0

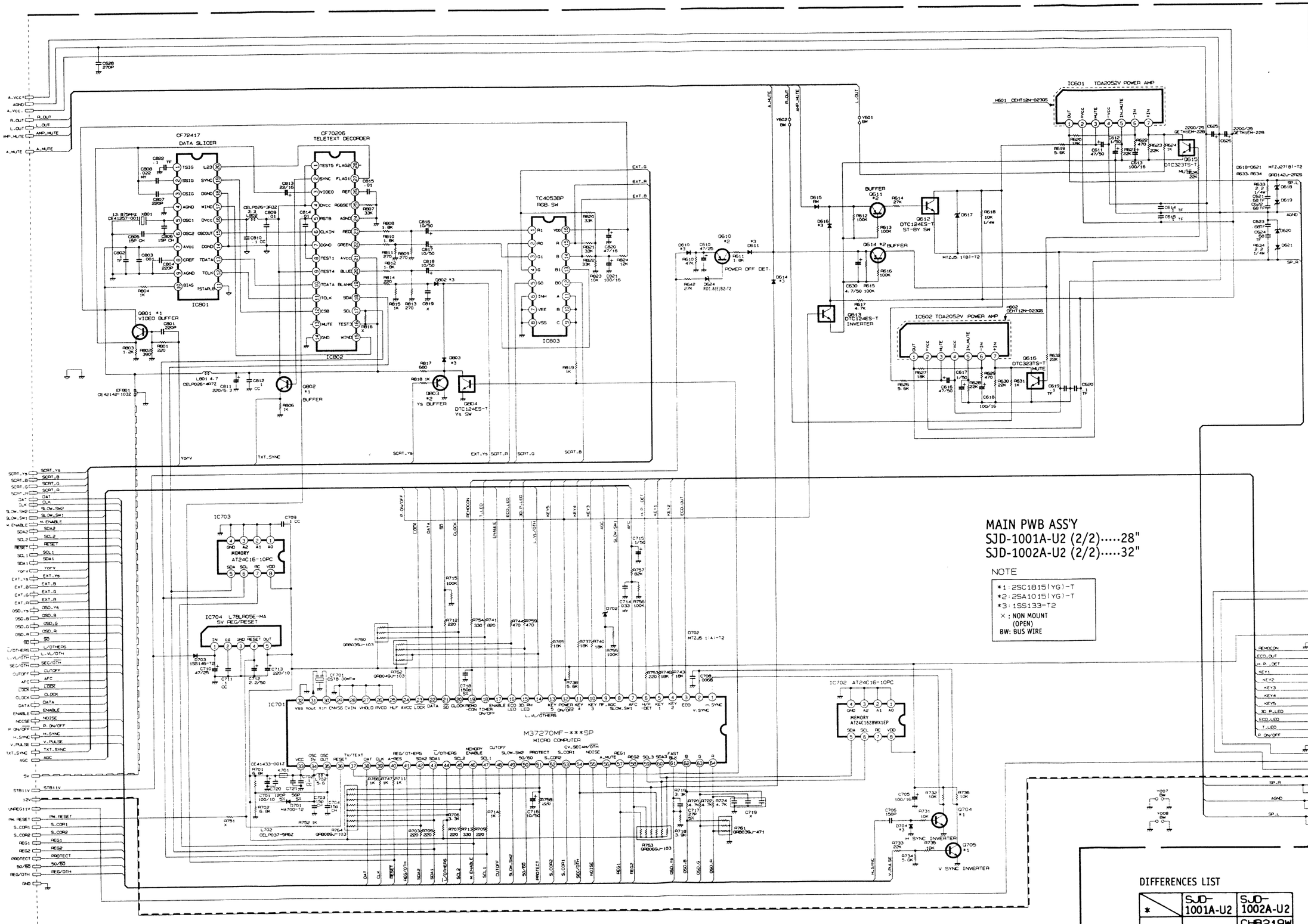
Q	E	C	B
Q704	0	4.1	0
Q705	0	4.8	0
Q801	2.2	4.9	2.8
Q802	2.4	5.0	3.0
Q803	0.6	0	0
Q804	0	0.6	0.1

Q704 Ⓒ
6Vp-p(H)



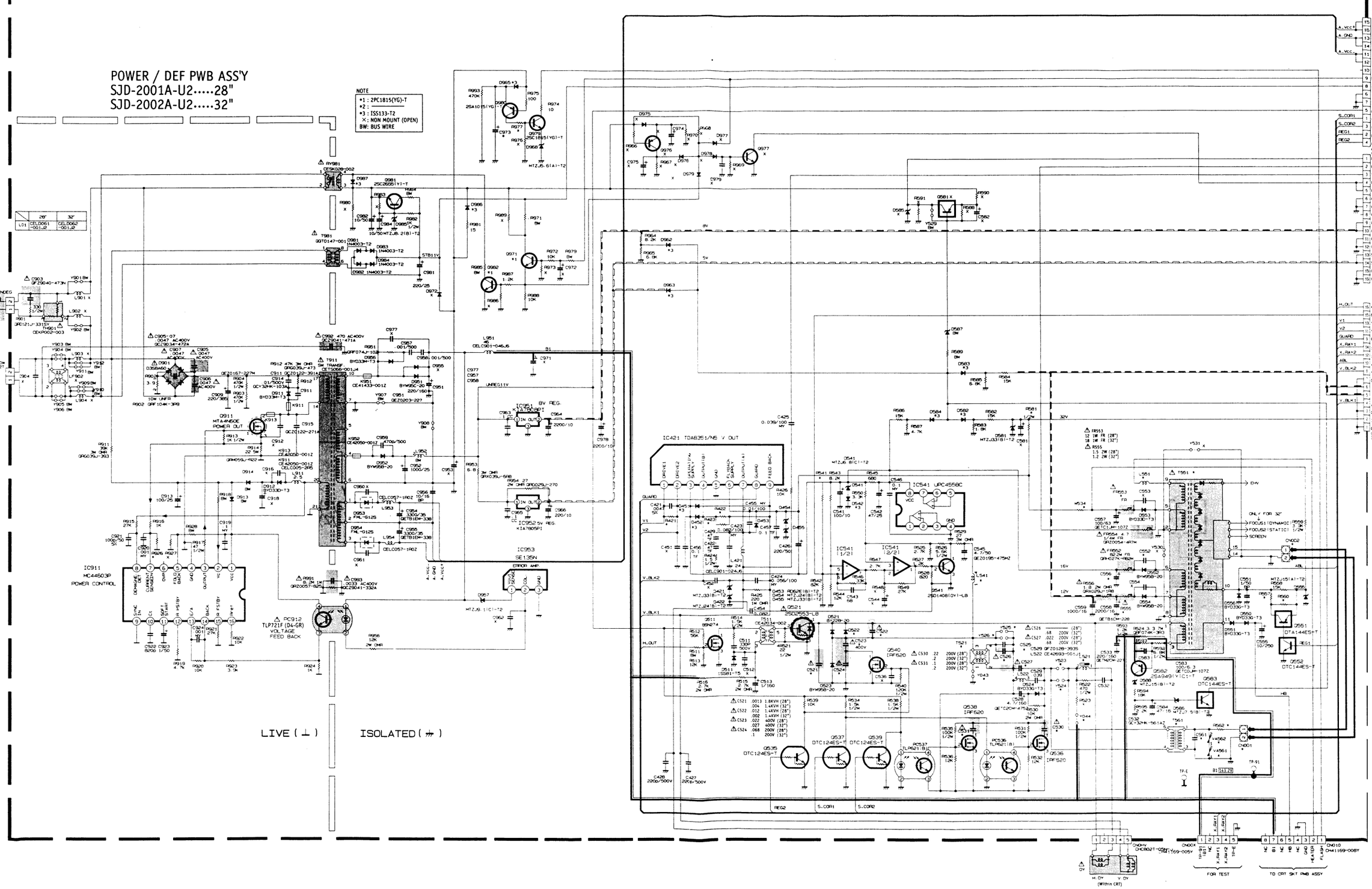
Q705 Ⓒ
6Vp-p(V)




IC601 TDA2052V POWER AMP
IC602 TDA2052V POWER AMP
IC801
IC802
IC803
IC701
IC702 AT24C16-10PC
IC703
IC704 L78L05F-MA
5V REG/RESET
CF72417
DATA SLICER
CF70206
TELETEXT DECORDER
TC40538P
RGB SW
M37270MF-***SP
MICRO COMPUTER
Q601 *1
VIDEO BUFFER
Q602 *1
BUFFER
Q603 *2
Ys BUFFER
Q604
DTC124ES-T
Ys SW
Q610 *2
POWER OFF DET.
Q611 *2
BUFFER
Q612
DTC124ES-T
ST-BY SW
Q613
DTC124ES-T
INVERTER
Q614 *2 BUFFER
Q615
DTC323TS-T
MUTE
Q616
DTC323TS-T
MUTE
Q704 *1
H SYNC INVERTER
Q705 *1
V SYNC INVERTER
MTZJ5.1B1-T2
MTZJ27B1-T2
A_VCC
AGND
A_VCC
R_OUT
L_OUT
AMP_MUTE
A_MUTE
SCRT_YS
SCRT_B
SCRT_G
SCRT_R
DAT
CLK
SLOW_SW2
SLOW_SW1
M_ENABLE
SDA2
SCL2
RESET
SCL1
SDA1
YorV
EXT_YS
EXT_B
EXT_G
EXT_R
OSD_YS
OSD_B
OSD_G
OSD_R
SD
L/OTHERS
L_VL/DTH
SEC/DTH
CUTOFF
AFC
LOCK
CLOCK
DATA
ENABLE
NOISE
P_ON/OFF
H_SYNC
V_PULSE
TXT_SYNC
AGC
5V
STB11V
12V
UNREG11V
PW_RESET
S_COR1
S_COR2
REG1
REG2
PROTECT
50/60
REG/DTH
GND
MAIN PWB ASS'Y
SJD-1001A-U2 (2/2).....28"
SJD-1002A-U2 (2/2).....32"
NOTE
*1:2SC1815(YG)-T
*2:2SA1015(YG)-T
*3:1SS133-T2
× : NON MOUNT (OPEN)
BW: BUS WIRE
DIFFERENCES LIST
SJD-1001A-U2
SJD-1002A-U2
CNOOL
×
CH8219W-02P-SE
TO FRONT CTRL PWB ASS'Y

POWER / DEF PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : POWER / DEF PWB PATTERN page 3-31～3-34.



VOLTAGE OF POWER/DEF PWB CIRCUIT DIAGRAM

IC421

	[V]
1	2.2
2	2.2
3	17.7
4	8.4
5	0
6	45.2
7	8.5
8	0.6
9	8.4

IC541

	[V]
1	1.9
2	6.2
3	6.2
4	0
5	4.5
6	4.5
7	6.7
8	17.7

IC911

	[V]		[V]
1	14.8	9	0
2	14.8	10	2.6
3	2.4	11	2.4
4	0	12	0.4
5	14.8	13	2.5
6	2.1	14	2.5
7	0.1	15	2.5
8	0.2	16	2.5

REGULATORS

IC951

	[V]
1	10.5
2	8.0
3	0

IC952

	[V]
1	8.0
2	5.0
3	0

IC953

	[V]
1	136
2	122
3	0

PC

PC536

	[V]
1	1.0
2	0
3	20.0
4	19.6

PC537

	[V]
1	1.0
2	0
3	20.0
4	20.0

PC912

	[V]
1	145
2	144
3	2.5
4	14.8

TRANSISTORS [V]

Q	E	C	B	Q	E	C	B	Q	E	C	B
Q511	0	57.8	2.5	Q541	0	17.1	0.5	Q977	0	1.3	0
Q521	0	-	0	Q551	14.1	14.1	0	Q978	0	0	1.3
Q535	0.1	9.7	0	Q552	0	0	4.2	Q979	1.3	12.8	0
Q536	20.0	11.4	19.6	Q582	145	5.0	145	Q980	10.2	0	10.5
Q537	0	1.0	0.1	Q583	0	4	0	Q981	8.9	13.6	8.0
Q538	20	113.5	19.5	Q911	0	29.3	2.1	Q982	0	0.3	0.7
Q539	0	1.0	0.1	Q971	2.5	13.6	3.1				
Q540	0	0	9.7	Q976	0	0	0				

IC421 ① 1.5Vp-p(H)

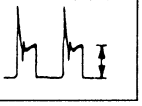
IC421 ④ 13Vp-p(H)

IC421 ⑦ 50Vp-p(H)

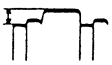
IC421 ⑨ 13Vp-p(H)

Q511 Ⓖ 6Vp-p(H)

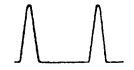
Q511 Ⓓ 120Vp-p(H)



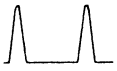
Q521 Ⓑ 2.5Vp-p(H)



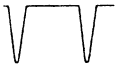
Q521 Ⓒ 1300Vp-p(H)



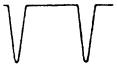
T551 ⑤ 70Vp-p(H)



T551 ⑥ 200Vp-p(H)

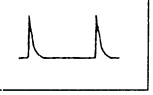


T551 ⑦ 160Vp-p(H)



T551 ⑨ 35Vp-p(H)

T551 ⑪ 60Vp-p(H)



T551 ⑮ 700Vp-p(H)

DIFFERENCES LIST

*	SJD-2001A -U2(28")	SJD-2002A -U2(32")
R421	QRV141F -2701AY	QRV141F -2201AY
R422	1.5 1/2W	1.0 1/2W
R423	1.5 1/2W	1.0 1/2W
⚠ C521	QFZ0122 -132S	QFZ0117 -4001S
⚠ C522	QFZ0117 -1202S	QFZ0117 -1002S
⚠ C524	QFM720K -683M	QFM720K -104M
C525	X	X
⚠ C526	X	QFZ0119 -684S
⚠ C527	QFZ0119 -354S	QFZ0119 -684S
⚠ C530	QFZ0119 -224S	QFZ0119 -204S

*	SJD-2001A -U2(28")	SJD-2002A -U2(32")
R541	18K	15K
L521	CELL011 -002J1	CELL012 -002J2
T521	X	CE42549 -001J1
⚠ T551	CETH014 -00AJ1	CETH015 -00AJ1
T561	X	CE42692 -001J1
L551	CELC901 -038J6	CELC901 -076J6
Y523	BW	X
Y524	BW	X
Y525	BW	X
Y526	BW	X

*	SJD-2001A -U2(28")	SJD-2002A -U2(32")
L541	CE42691 -001J1	CE42567 -001J1
⚠ C523	QFP32GJ -223M	QFP32GJ -273M
⚠ C531	QFZ0119 -104S	QFZ0119 -204S
C561	X	QCZ0122 -102A
R562	X	QRC122K -103
Y043	X	BW
Y044	X	X
VA561	X	ERZV10D 112-C1
D522	BY228 -20	X
C556	QETN1EM -108Z	QETB1EM -338

*	SJD-2001A -U2(28")	SJD-2002A -U2(32")
R926	6.8K	10K
R581	QRD121J -122SY	QRD121J -182SY
⚠ R555	QRX029J -1R5	QRX029J -1R2
CN000	X	CHG001-0F-N
⚠ FR553	QRH017J -120M	QRH017J -180M
C973	10/16	4.7/50
R977	6.8K	5.6K
R557	18K	15K
R560	33K	15K
VA562	X	BW

*	SJD-2001A -U2(28")	SJD-2002A -U2(32")
C552	QCY32HK -821AZ	X
W534	QRD121J -180SY	BW
VA561	———	ERZ V10V112C1

VOLTAGE OF FRONT CONTROL PWB CIRCUIT DIAGRAM

IC001

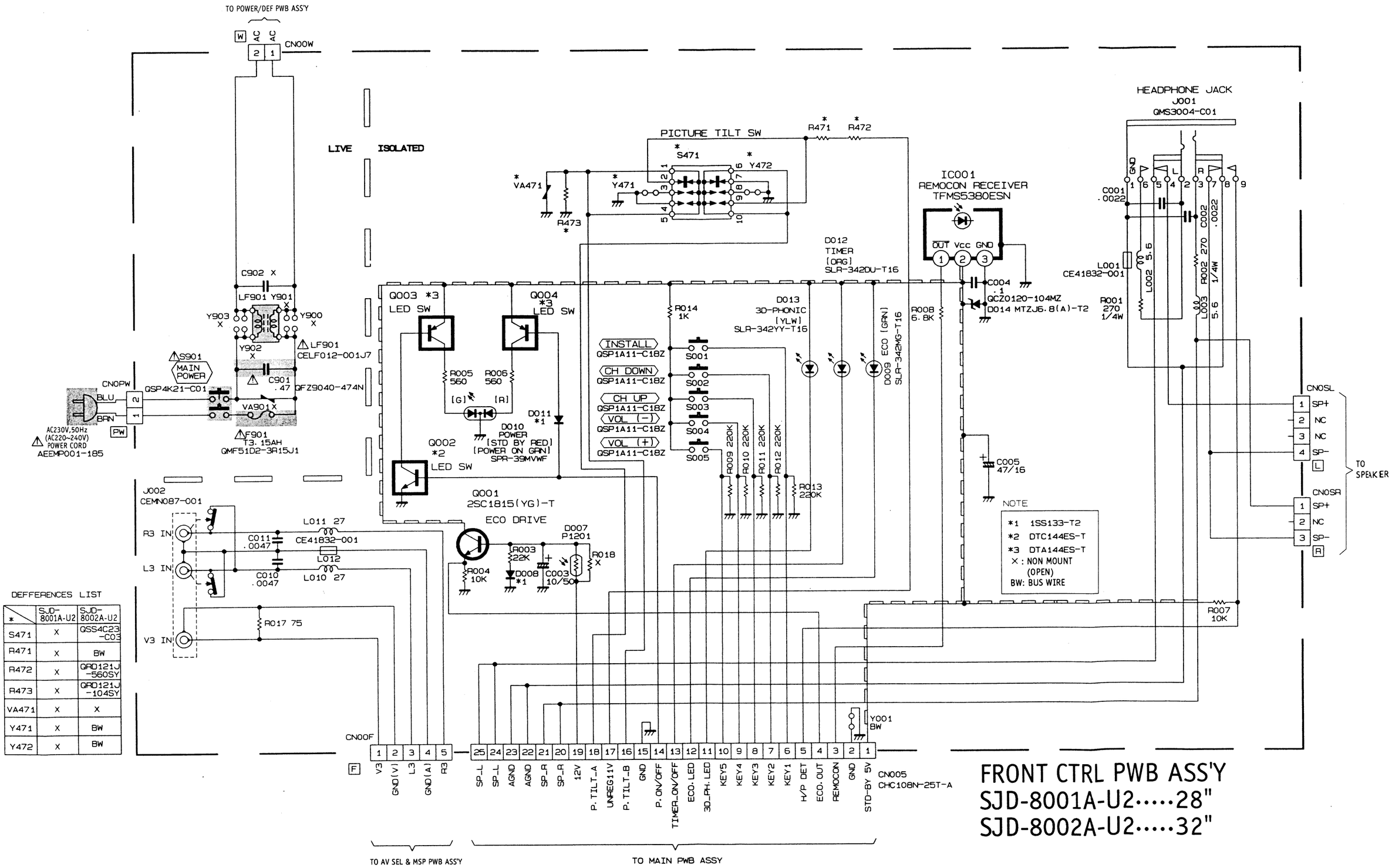
	[V]
1	4.9
2	5.0
3	0

TRANSISTORS [V]

Q	E	C	B
Q001	5.0	5.5	5.0
Q002	0	3.7	0
Q003	5.0	4.9	0
Q004	5.0	0	4.0

FRONT CONTROL PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : FRONT CONTROL PWB PATTERN page 3-42.



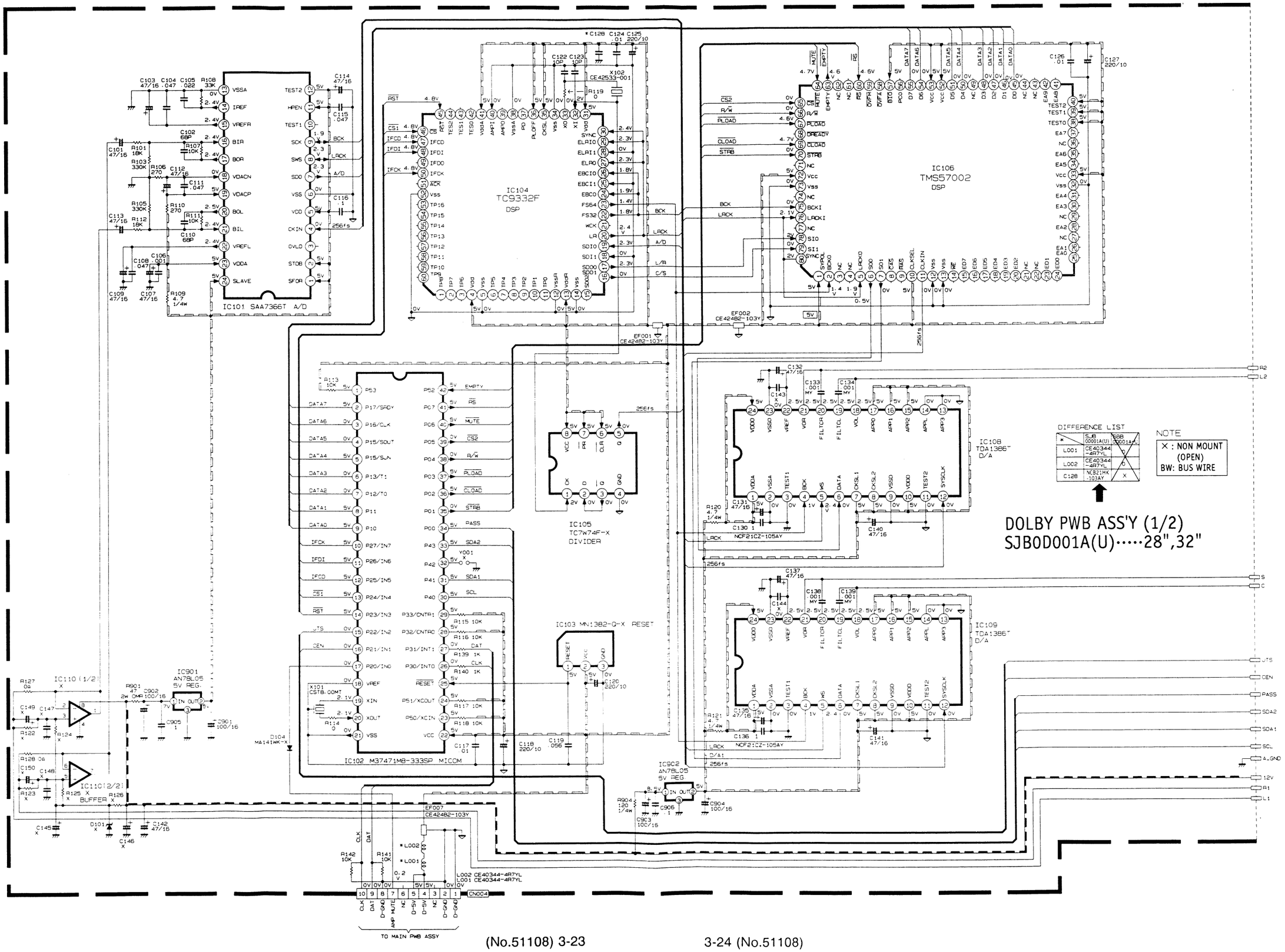
DEFFERENCES LIST

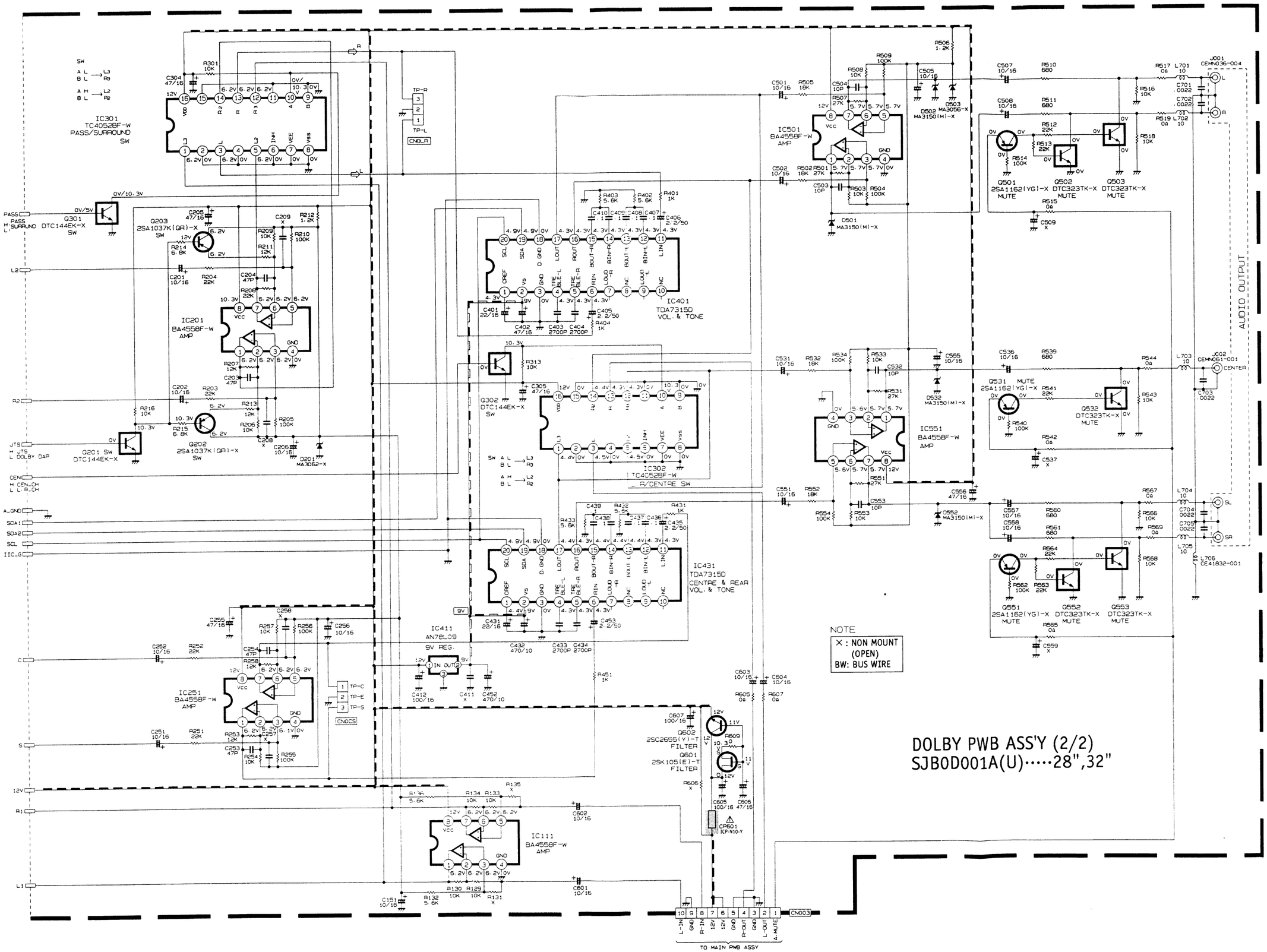
*	SJD-8001A-U2	SJD-8002A-U2
S471	X	QSS4C23-C03
R471	X	BW
R472	X	QRD121J-560SY
R473	X	QRD121J-104SY
VA471	X	X
Y471	X	BW
Y472	X	BW

FRONT CTRL PWB ASS'Y
SJD-8001A-U2·····28"
SJD-8002A-U2·····32"

DOLBY PWB CIRCUIT DIAGRAM

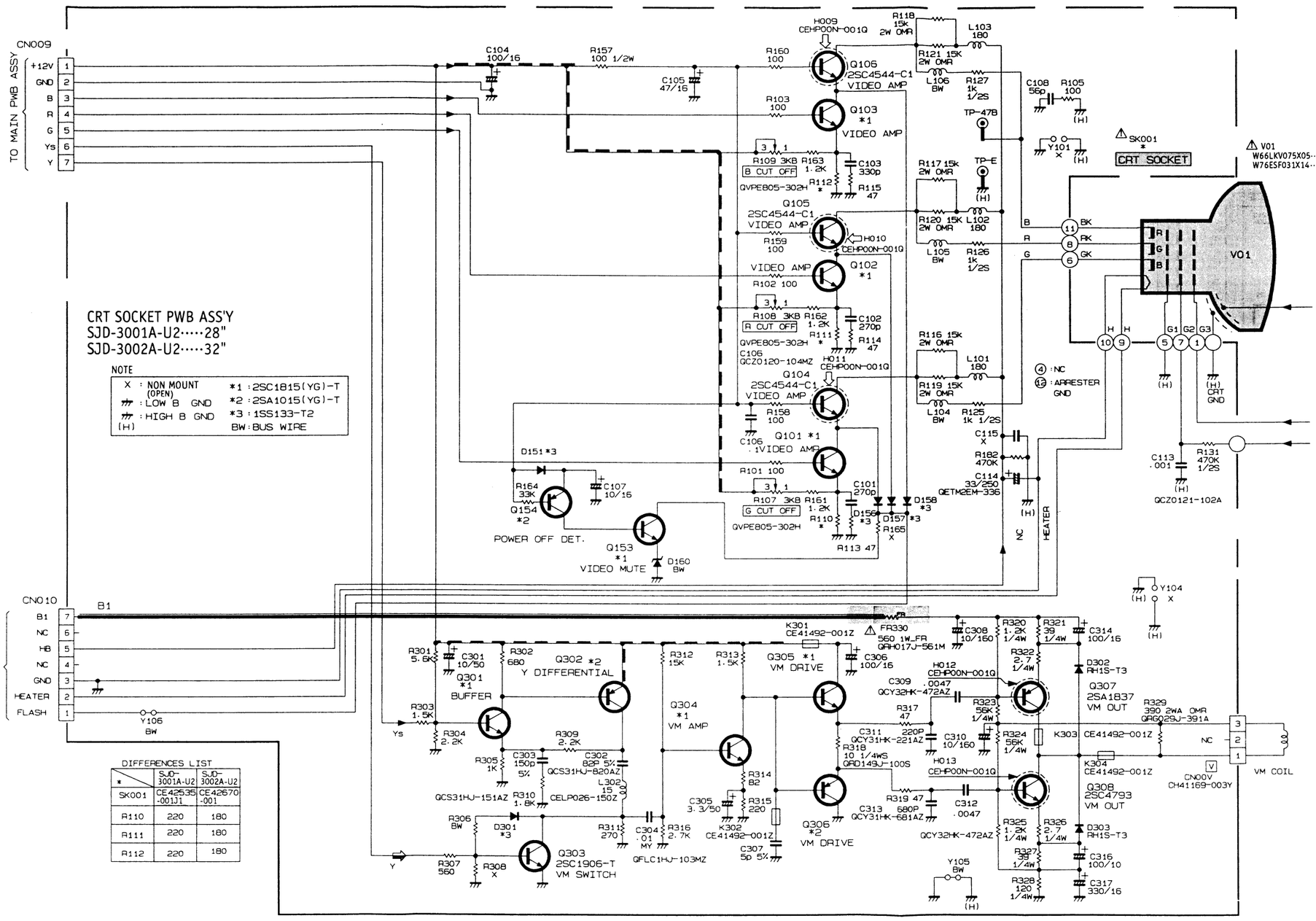
Refer to the following PWB pattern. : DOLBY PWB PATTERN page 3-39~3-40.




IC301
TC40528F-W
PASS/SURAROUND
SW
IC201
BA4558F-W
AMP
IC401
TDA7315D
VOL. & TONE
IC431
TDA7315D
CENTRE & REAR
VOL. & TONE
IC411
AN78L09
9V REG.
IC251
BA4558F-W
AMP
IC111
BA4558F-W
AMP
IC501
BA4558F-W
AMP
IC551
BA4558F-W
AMP
IC302
TC40528F-W
R/CENTRE SW
Q301
DTC144EK-X
SW
Q203
2SA1037K(QR)-X
SW
Q202
2SA1037K(QR)-X
SW
Q201: SW
DTC144EK-X
Q201
MA3062-X
Q302
DTC144EK-X
SW
Q501
2SA1162(YG)-X
MUTE
Q502
DTC323TK-X
MUTE
Q503
DTC323TK-X
MUTE
Q531
2SA1162(YG)-X
MUTE
Q532
DTC323TK-X
MUTE
Q551
2SA1162(YG)-X
MUTE
Q552
DTC323TK-X
MUTE
Q553
DTC323TK-X
MUTE
Q602
2SC2655(Y)-T
FILTER
Q601
2SK105(E)-T
FILTER
D501
MA3150(M)-X
D502
MA3150(M)-X
D503
MA3056-X
D532
MA3150(M)-X
D552
MA3150(M)-X
CP601
ICP-N10-Y
J001
CEMN036-004
J002
CEMN061-001
CENTER
AUDIO OUTPUT
TP-R
TP-L
CNOLR
TP-C
TP-E
TP-S
CNOCS
CN003
TO MAIN PWB ASSY
SW
A L → L3 R3
B L
A H → L2 R2
B L
PASS
H PASS
L SURROUND
L2
R2
JIS
H JIS
L DOLBY DAP
CEN
H CEN-CH
L L-R-CH
A_GND
SDA1
SDA2
SCL
IIC_G
C
S
12V
R1
L1
L
R
SL
SR
NOTE
X : NON MOUNT
(OPEN)
BW: BUS WIRE
DOLBY PWB ASS'Y (2/2)
SJB0D001A(U)·····28",32"

CRT SOCKET PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : CRT SOCKET PWB PATTERN page 3-41.



DIFFERENCES LIST

*	SJD-3001A-U2	SJD-3002A-U2
SK001	CE42535-001J1	CE42670-001
R110	220	180
R111	220	180
R112	220	180

[28"]

TRANSISTORS [V]

TR	E	C	B
Q101	2.5	11.7	3.1
Q102	12.6	11.8	3.2
Q103	2.5	11.7	3.2
Q104	11.7	140	12.2
Q105	11.8	141	12.3
Q106	11.7	134	12.3
Q301	2.7	11.6	3.3
Q302	6.5	12.3	11.6
Q303	0	0	0
Q304	1.1	6.6	1.8
Q305	6.5	12.3	6.6
Q306	6.5	0	6.6
Q307	133	69.7	132
Q308	3.0	69.7	3.5
Q153	0	0	0
Q154	12.4	0	12.2

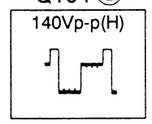
[32"]

TRANSISTORS [V]

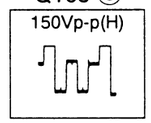
TR	E	C	B
Q101	2.5	11.7	3.1
Q102	12.6	11.8	3.2
Q103	2.5	11.7	3.2
Q104	11.7	126	12.3
Q105	11.8	127	12.3
Q106	11.7	118	12.5
Q301	2.7	11.6	3.3
Q302	6.5	12.3	11.6
Q303	0	0	0
Q304	1.1	6.6	1.8
Q305	6.5	12.3	6.6
Q306	6.5	0	6.6
Q307	133	69.7	132
Q308	3.0	69.7	3.5
Q153	0	0	0
Q154	12.4	0	12.2

[28"]

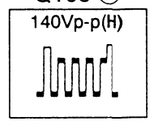
Q104 Ⓒ 140Vp-p(H)



Q105 Ⓒ 150Vp-p(H)

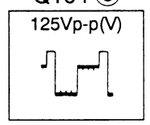


Q106 Ⓒ 140Vp-p(H)

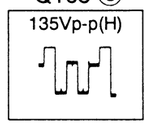


[32"]

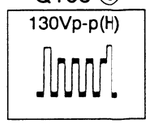
Q104 Ⓒ 125Vp-p(V)



Q105 Ⓒ 135Vp-p(H)



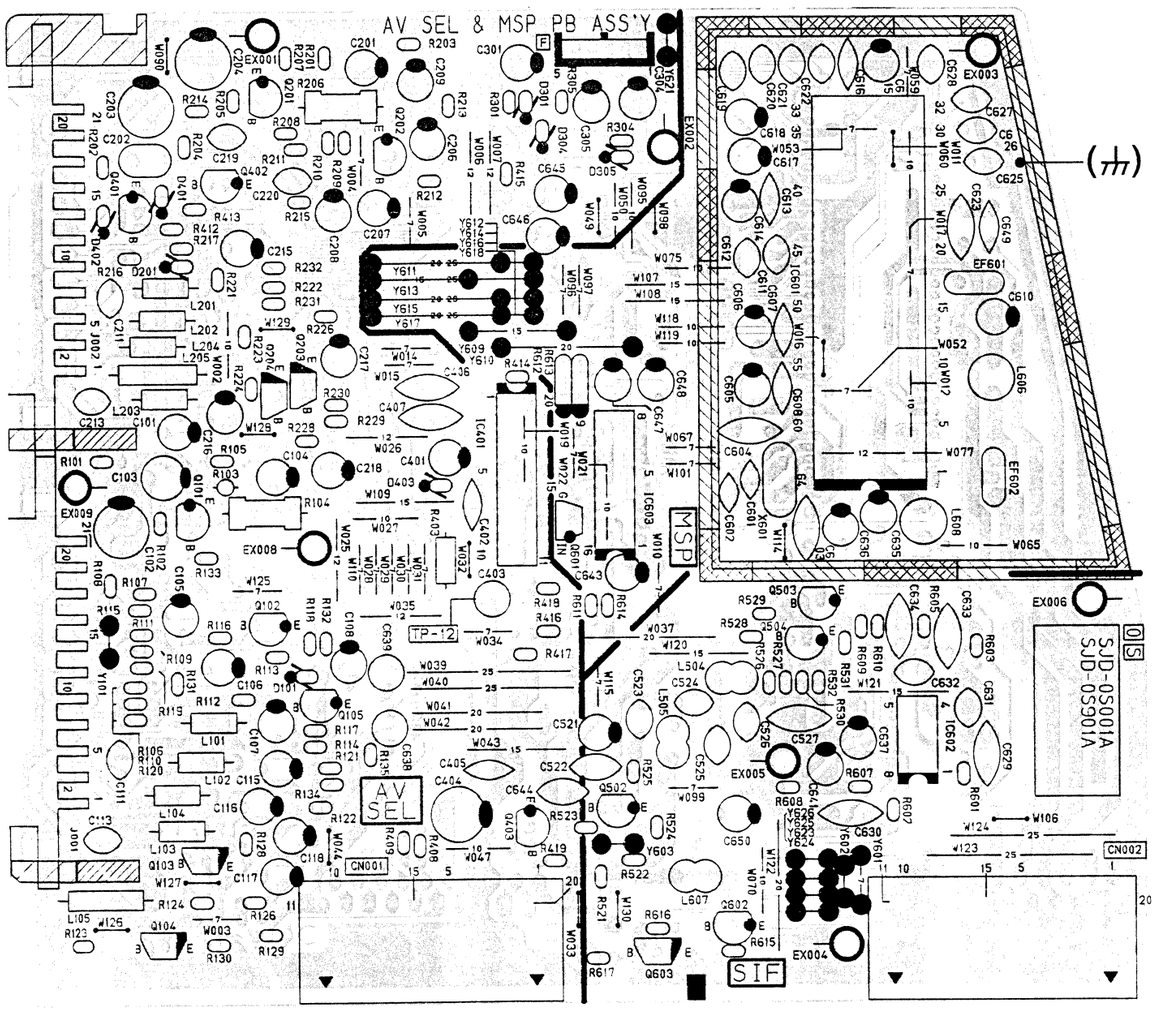
Q106 Ⓒ 130Vp-p(H)



AV SEL. & MSP PWB PATTERN (PARTS SIDE) [SJD0S001A-U2]

(Magnification Rate 100%)

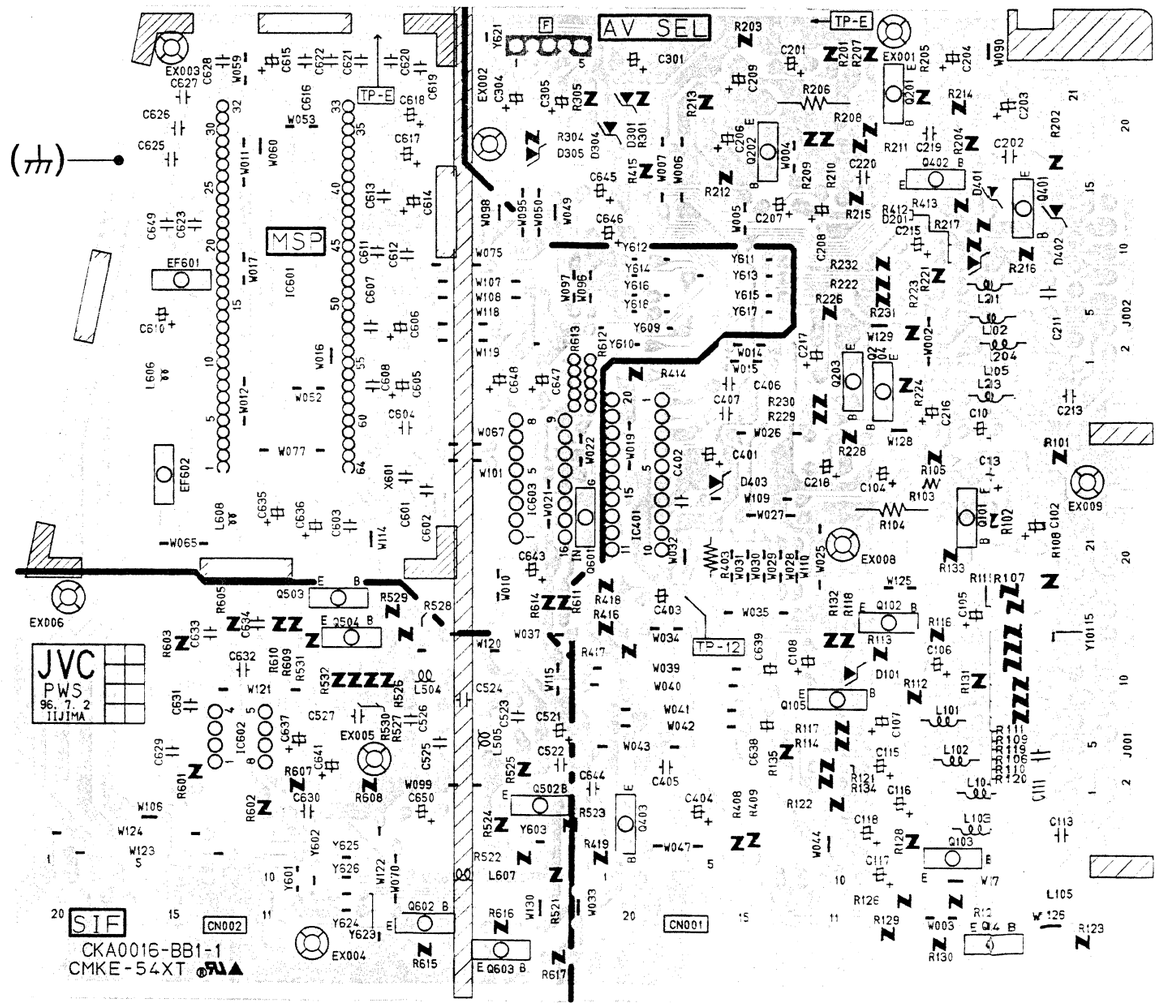
TOP



AV SEL. & MSP PWB PATTERN (SOLDER SIDE) [SJD0S001A-U2]

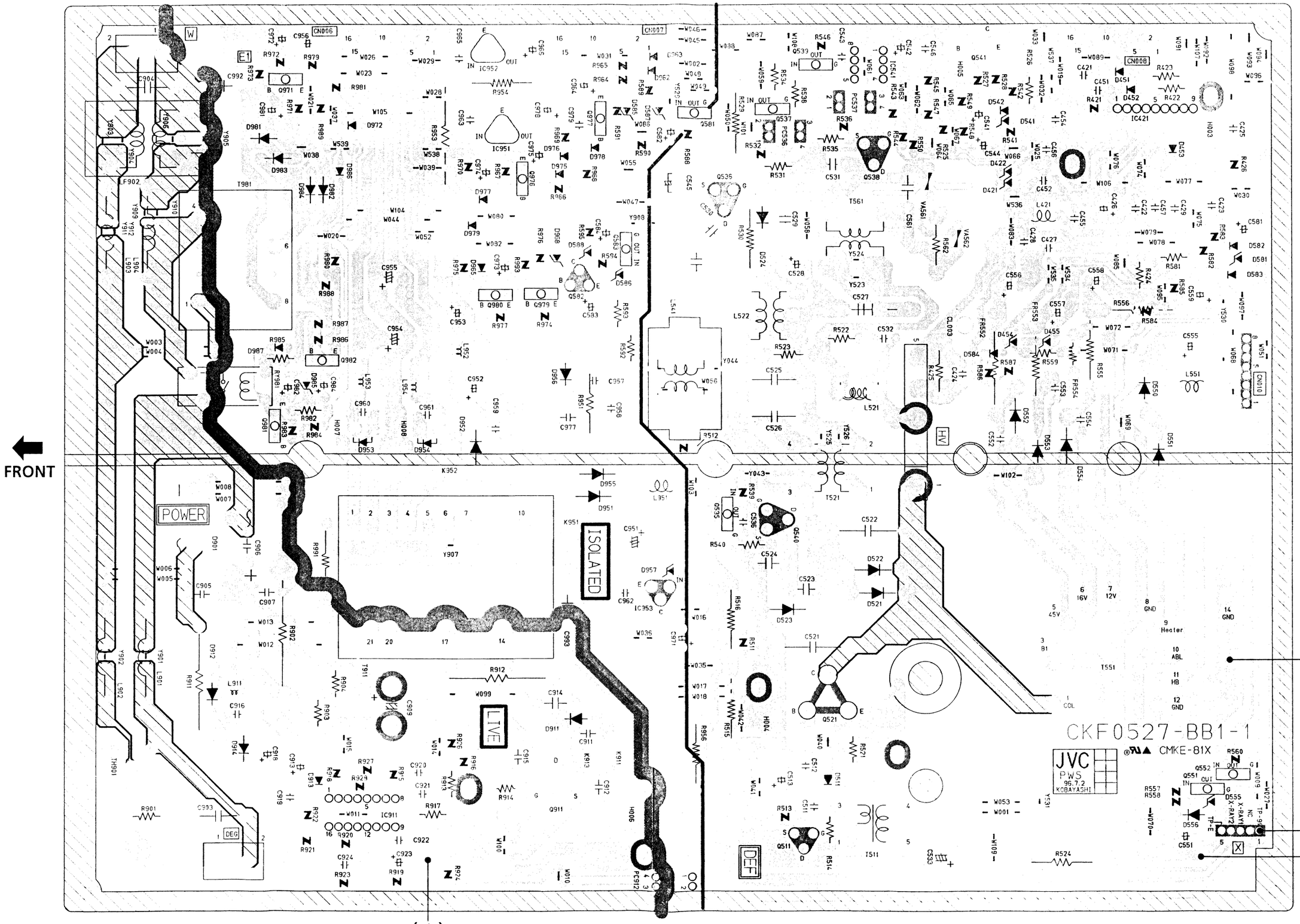
(Magnification Rate 100%)

TOP



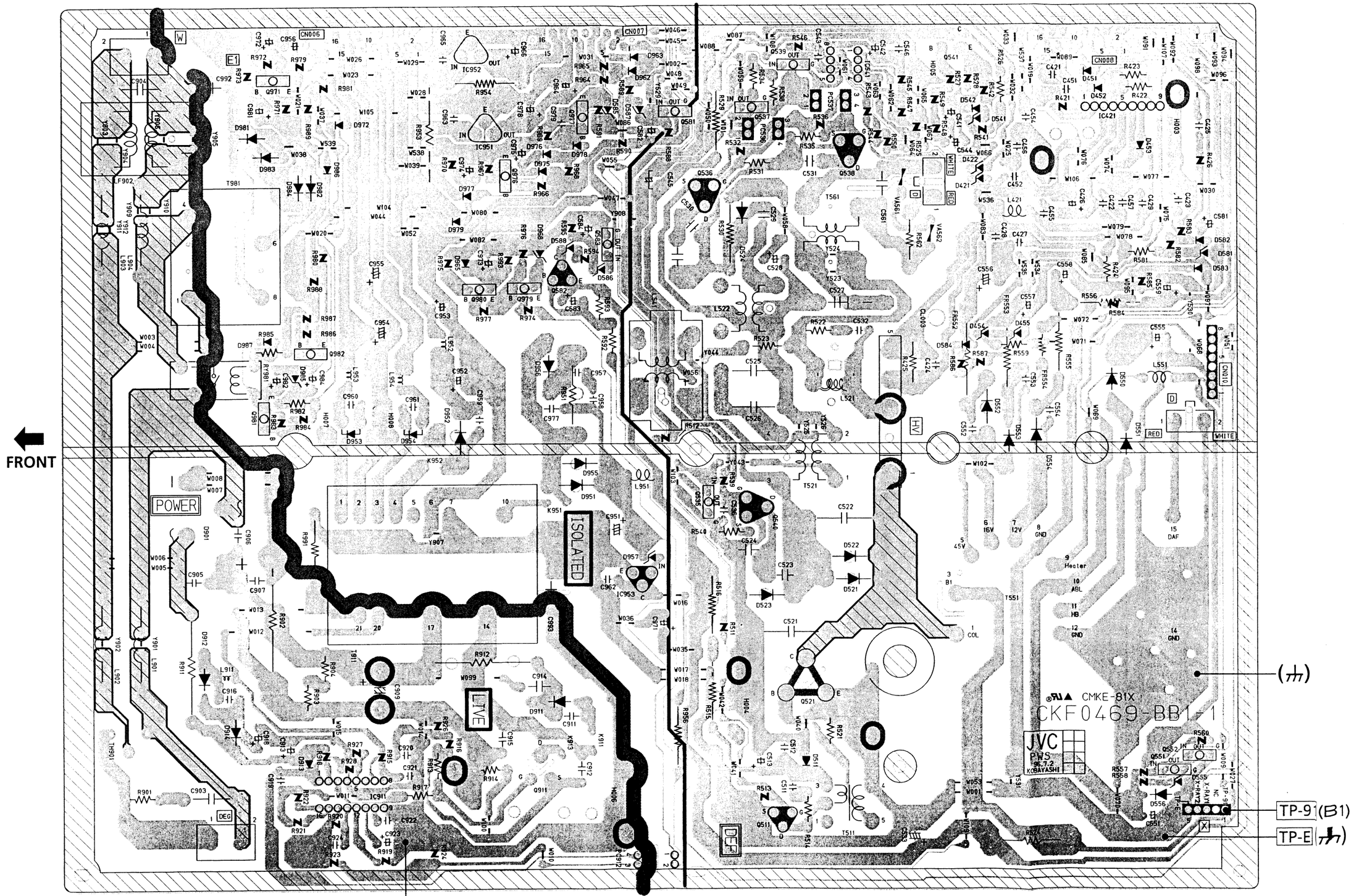
POWER / DEF PWB PATTERN [28":SJD-2001A-U2]

(Magnification Rate 95%)



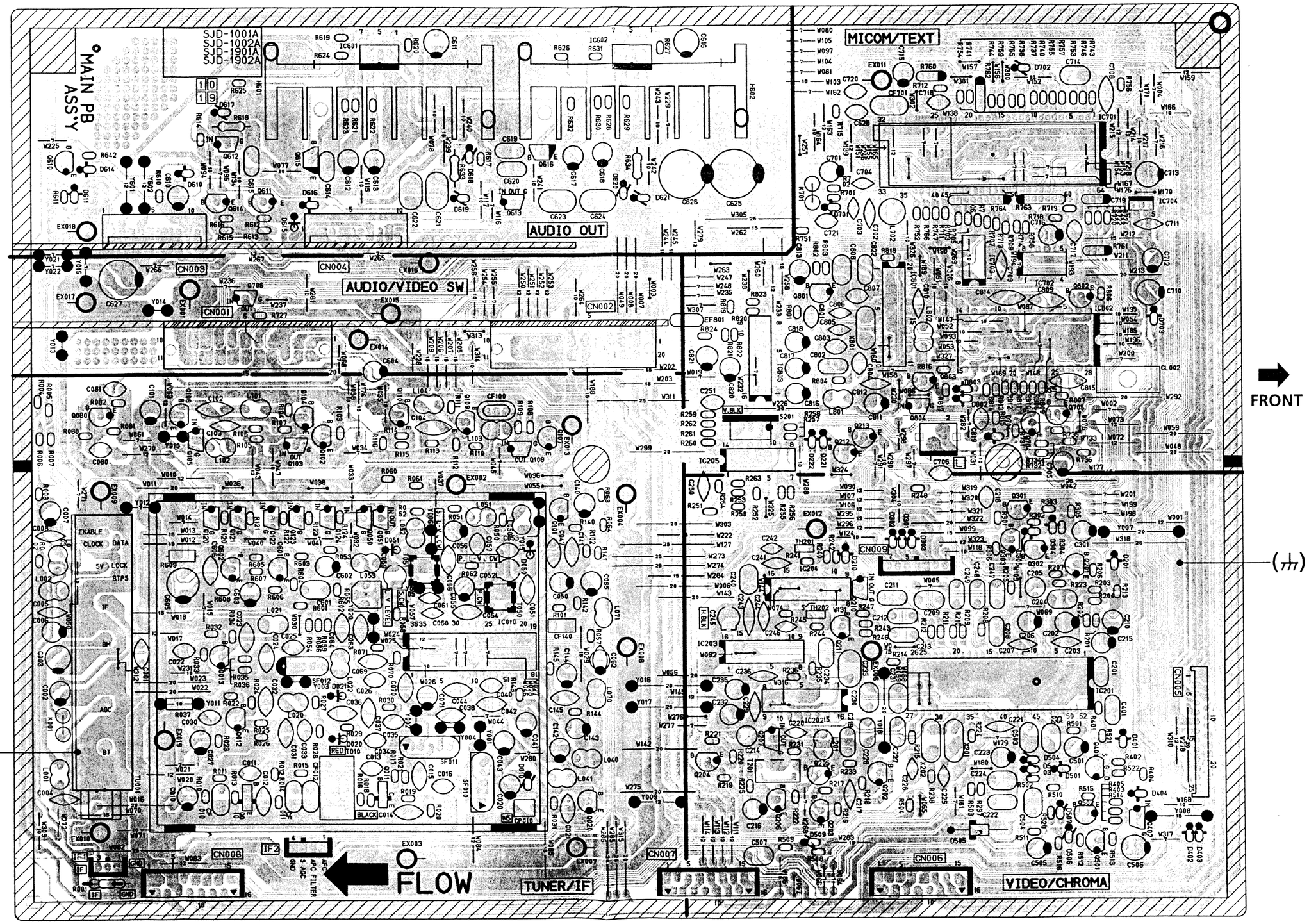
POWER / DEF PWB PATTERN [32":SJD-2002A-U2]

(Magnification Rate 95%)



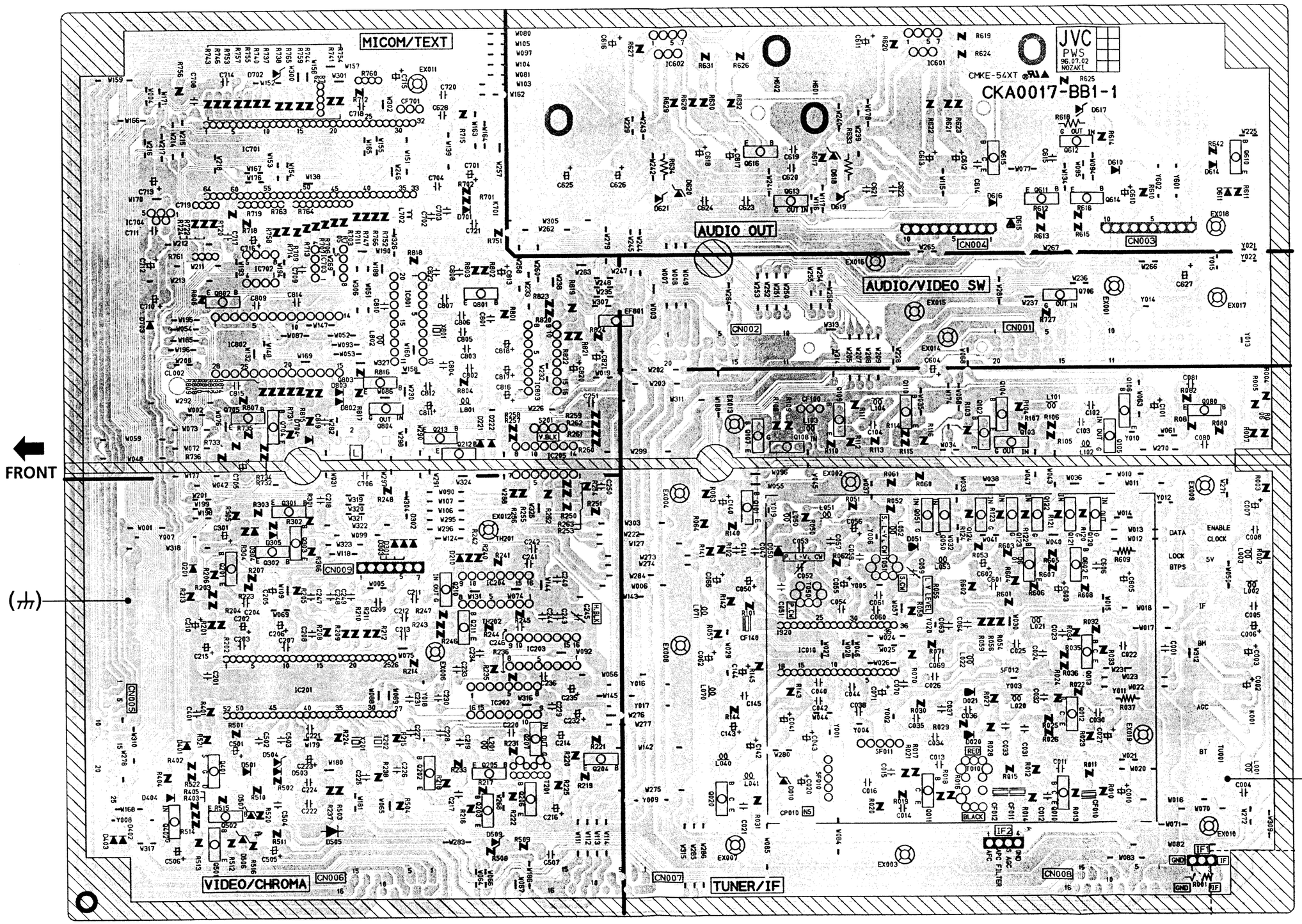
MAIN PWB PATTERN (PARTS SIDE) [28":SJD-1001A-U2 / 32":SJD-1002A-U2]

(Magnification Rate 95%)



MAIN PWB PATTERN (SOLDER SIDE) [28":SJD-1001A-U2 / 32":SJD-1002A-U2]

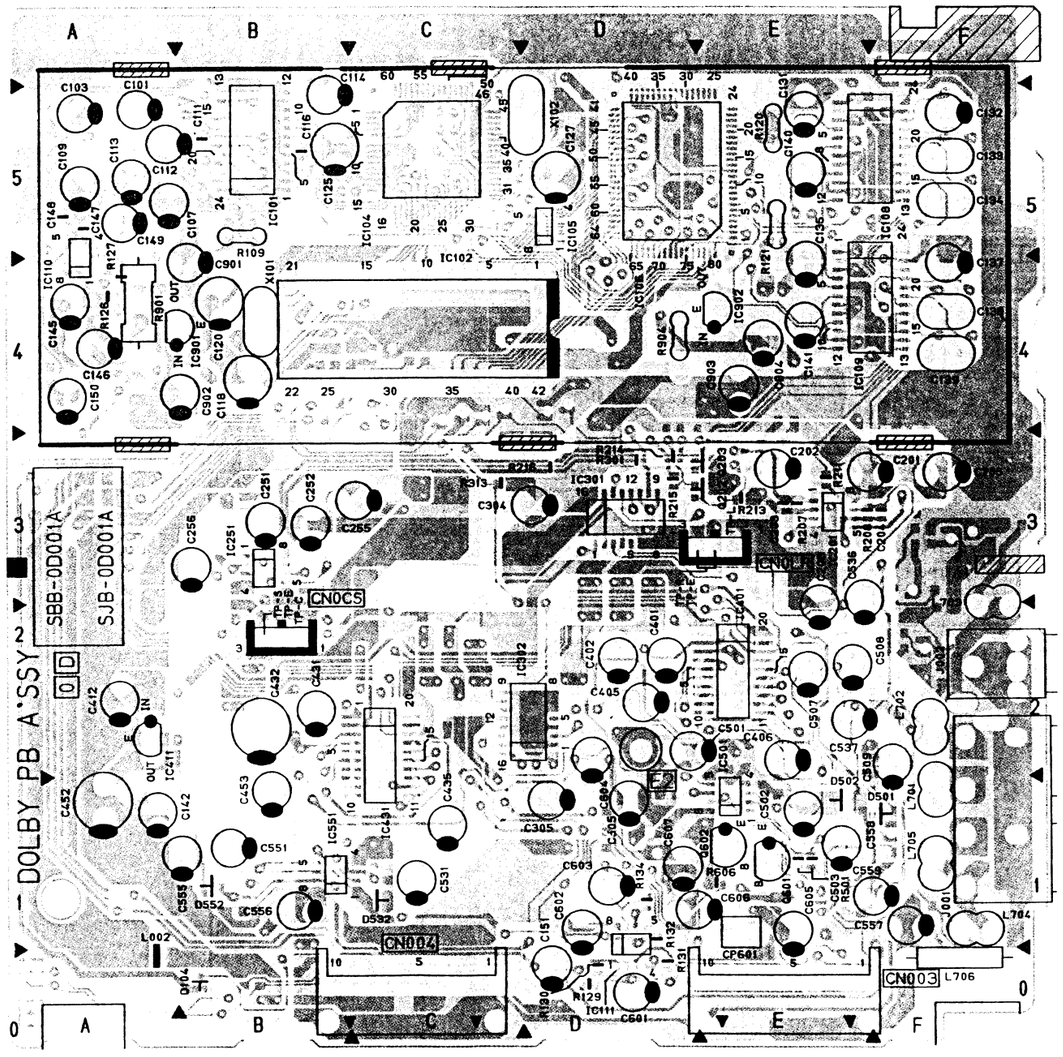
(Magnification Rate 95%)



DOLBY PWB PATTERN (TOP VIEW) [SJB0D001A(U)]

(Magnification Rate 115%)

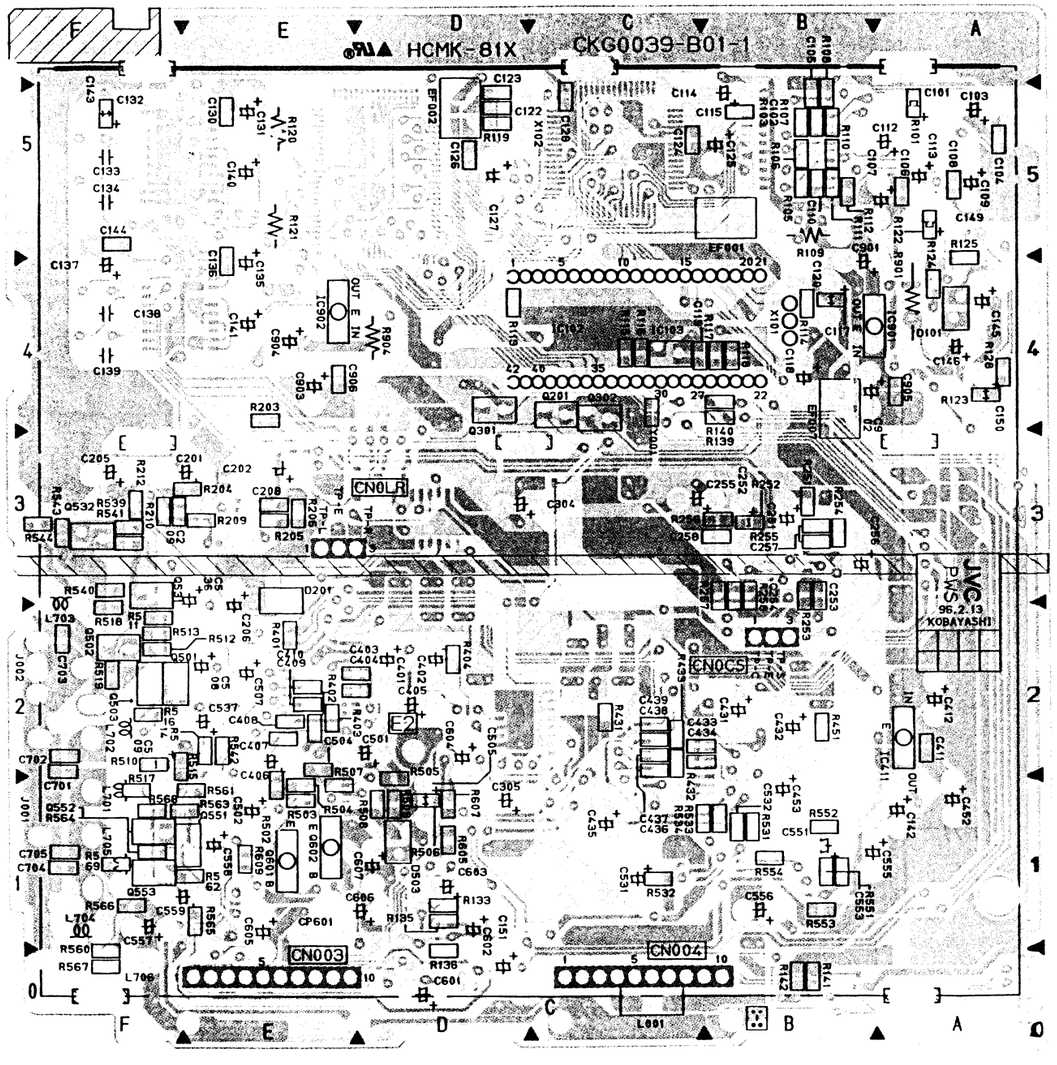
TOP



DOLBY PWB PATTERN (BOTTOM VIEW) [SJB0D001A(U)]

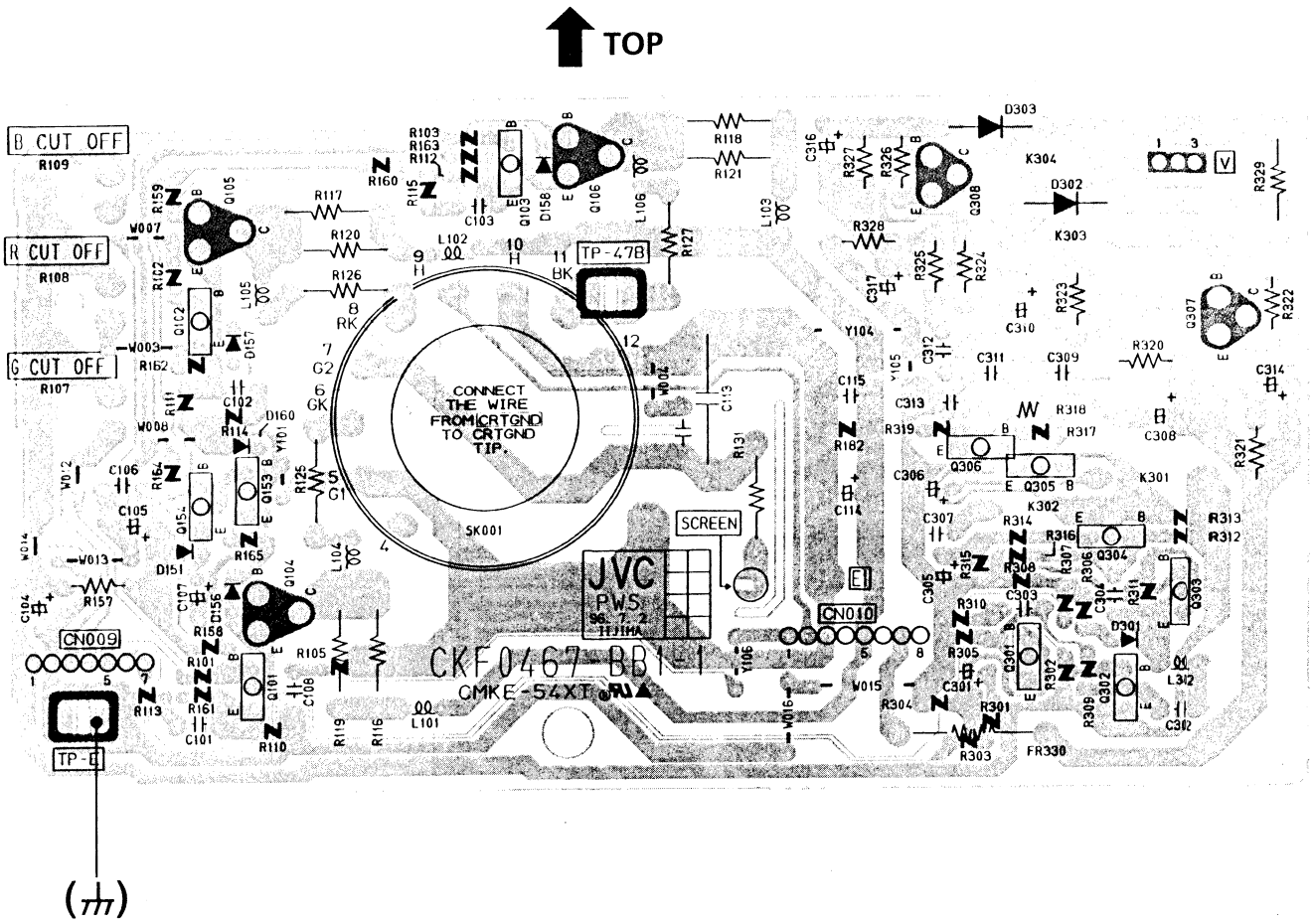
(Magnification Rate 115%)

TOP



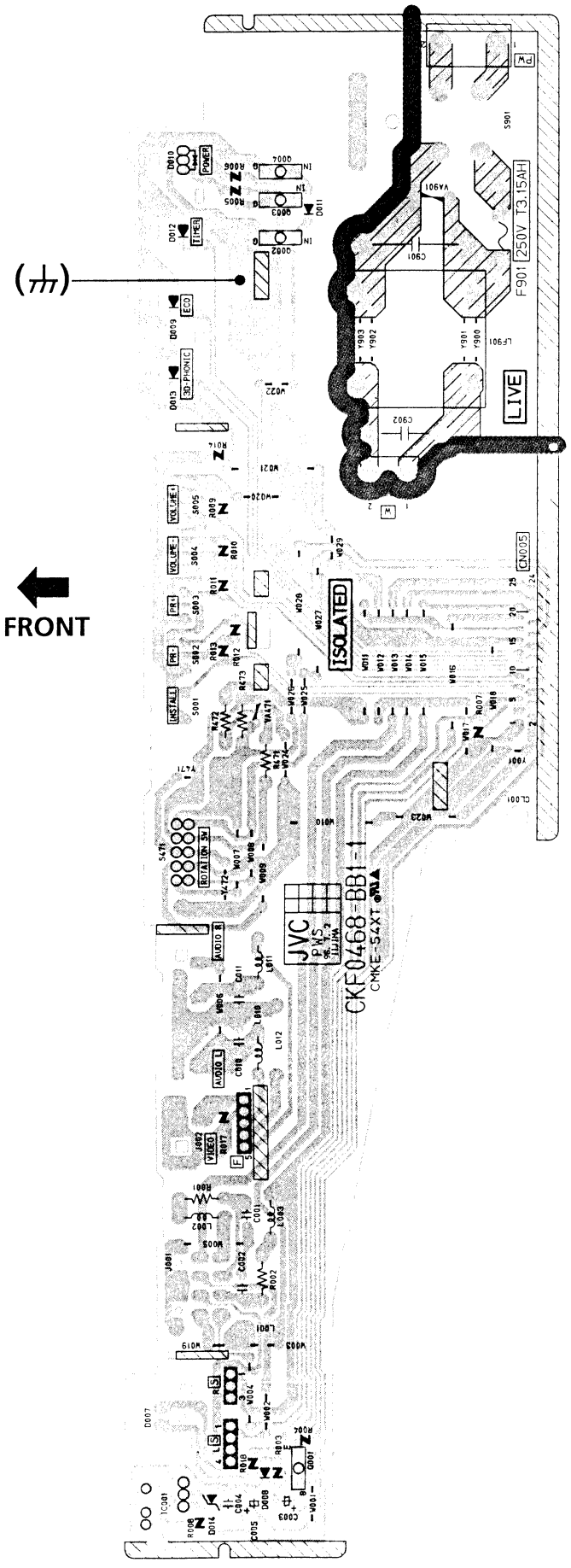
CRT SOCKET PWB PATTERN [28:SJD-3001A-U2 / 32:SJD-3002A-U2]

(Magnification Rate 98%)



FRONT CONTROL PWB PATTERN [28:SJD-8001A-U2 / 32:SJD-8002A-U2]

(Magnification Rate 72%)



VPC508
NP138

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
- As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
  When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

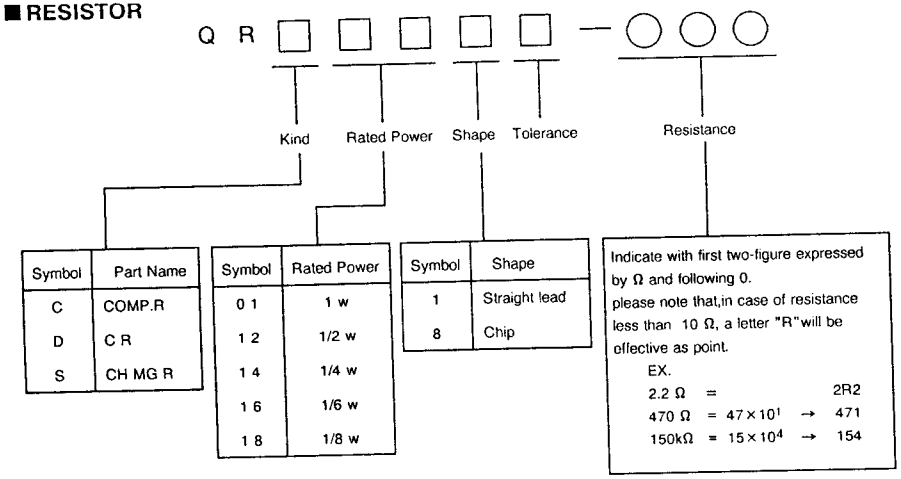
ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
± 1%	± 2%	± 5%	± 10%	± 20%	± 30%	+30% • 10%	+50% - 10%	+80% - 20%	+100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR



Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

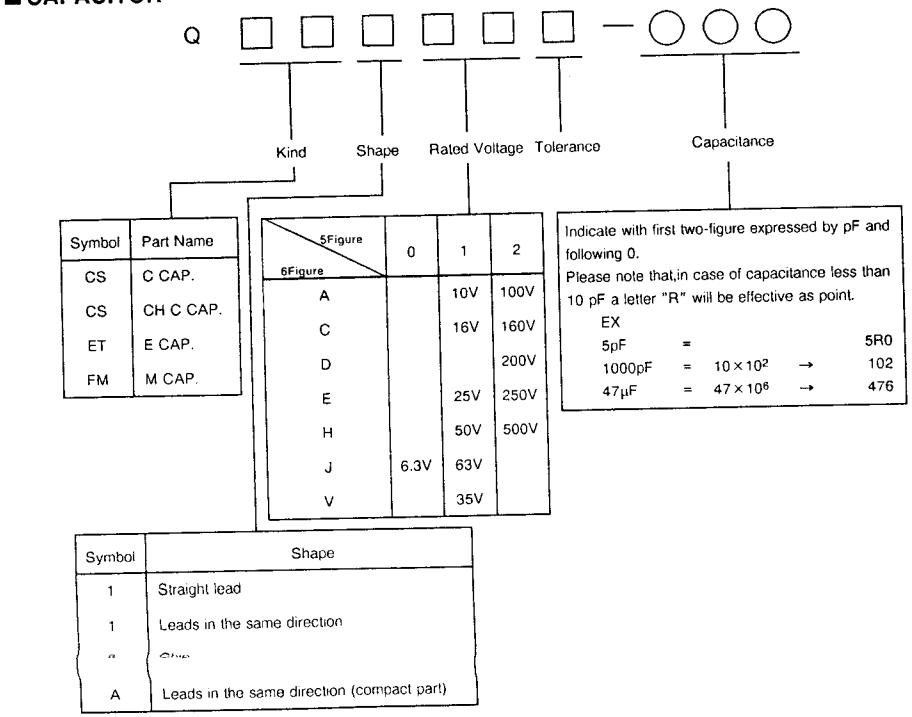
Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R"will be effective as point.

EX.

2.2 Ω	=		2R2
470 Ω	=	47×10^1 →	471
150kΩ	=	15×10^4 →	154

■ CAPACITOR



Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

6Figure \ 5Figure	0	1	2
A		10V	100V
C		16V	160V
D			200V
E		25V	250V
H		50V	500V
J	6.3V	63V	
V		35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.

EX

5pF	=		5R0
1000pF	=	10×10^2 →	102
47μF	=	47×10^6 →	476

Symbol	Shape
1	Straight lead
1	Leads in the same direction
A	Leads in the same direction (compact part)

AV-28WX1EP
AV-32WX1EP

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- MAIN PW BOARD ASS'Y (SJD-1002A-U2) 4-22
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USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y \ Model	AV-28WX1EP	AV-32WX1EP
MAIN P.W.B	SJD-1001A-U2	SJD-1002A-U2
POWER DEF P.W.B	SJD-2001A-U2	SJD-2002A-U2
CRT SOCKET P.W.B	SJD-3001A-U2	SJD-3002A-U2
FRONT CONTROL P.W.B	SJD-8001A-U2	SJD-8002A-U2
DOLBY P.W.B	SJB0D001A(U)	←
AV SEL. & MSP P.W.B	SJD0S001A-U2	←
REMOTE CONTROL UNIT	RM-C782-1E	←

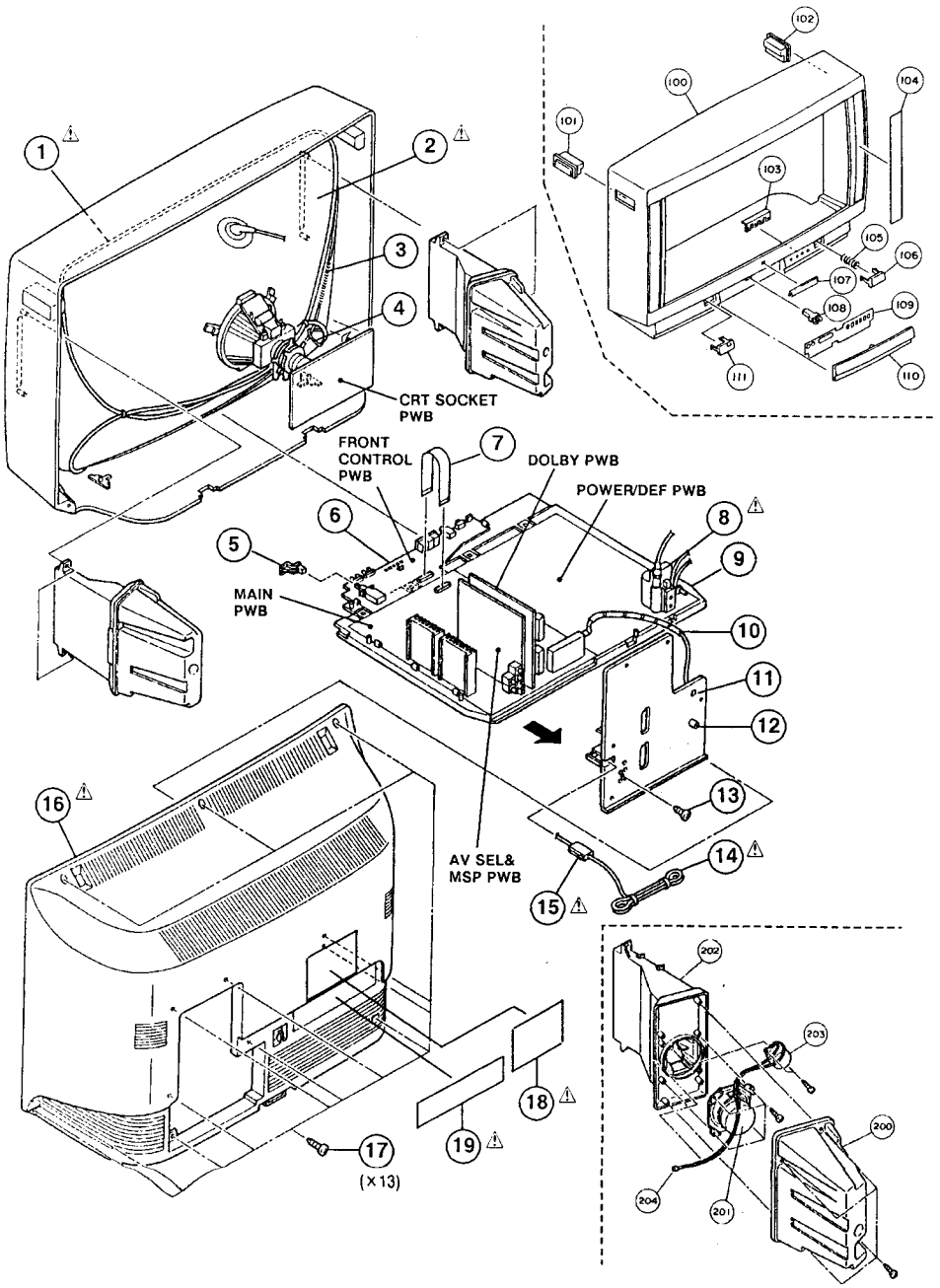
AV-28WX1EP

EXPLODED VIEW PARTS LIST

⚠	Ref. No.	Part No.	Part Name	Description	Local
⚠	1	CELD061-001J2	DEG COIL	L01	*
⚠	2	W66LKV075X05	ITC TUBE(C)	V01(Inc.DY,PC MAGNET,WED.)	*
	3	CHGB0015-0B	BRAIDED ASSY		*
	4	CHGB0017-0C-CE	BRAIDED SUB ASSY		*
	5	CM36311-001	KNOB CAP		
	6	CM12799-003	CONTROL BASE		
	7	CHFB125-12BD	FFC WIRE		*
⚠	8	CETH014-00AJ1	H.V.TRANSF.	(SERVICE)T2551	
	9	CM12800-A02-KD	CHASSIS BASE		
	10	CHGY0017-0A-YS	ANTENNA CABLE		*
	11	CM12813-B01-E	AV TERM BOARD		*
	12	CE42112-002	PALJ CONNECTOR		
	13	SBSB3012M	TAPPING SCREW	For AV TERM BOARD	
⚠	14	AEEMP001-185	POWER CORD		*
⚠	15	CM46618-A01-E	POWER CORD CLAMP		*
⚠	16	CM12582-004-KD	REAR COVER		
	17	GBSA4016N	TAPPING SCREW	(×13)For REAR COVER	*
⚠	18	CM23048-001	RATING LABEL	For GBR/GER/ITA	*
⚠	19	CM23049-001	RATING LABEL	For GBR/FRA/ESP	*
	100	CM12677-B0D-KD	FRONT CABI.ASSY	Inc.No.101～111	
	101	CM35865-00C	INSULATER(L)	(SERVICE)	
	102	CM35865-00D	INSULATOR(R)	(SERVICE)	
	103	CM36223-001	LED LENS		
	104	CM36226-A0A-H	SPEAKER NET	(×2)	
	105	CM30861-069	SPRING		
	106	CM36225-001	POWER KNOB		
	107	CM48125-001	JVC MARK		
	108	CM48229-00A	DOOR LATCH		
	109	CM36224-A10	OPERATION SHEET		
	110	CM22898-A03	DOOR	(SERVICE)	
	111	CM48076-A01	CDS WINDOW		
	200	CM12878-001-E	DOME BOX	(×2)	
	201	CEBSF10P-04KJ6	SPEAKER(WO)	(×2)SP01,SP02	*
	202	2528MXSP-SWE	DOME SP ASSY	(×2)Inc.No.203,204	*
	203	CEBSS03K-01KJ2	SPEAKER	(×2)	*
	204	CHGS0057-0A-N	S.P WIRE ASSY	(×2)	*

EXPLODED VIEW

AV-28WX1EP



PRINTED WIRING BOARD PARTS LIST

AV-28WX1EP

MAIN PW BOARD ASS'Y (SJD-1001A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
VARIABLE RESISTOR						
R1055	QVPE611-202HZ	V R(L V LEVEL)	2kΩ B			
RESISTOR						
R1250-51	QRV141F-1502AY	MF R	15kΩ	1/4W	F	
R1252	QRV141F-4702AY	MF R	47kΩ	1/4W	F	
R1253	QRV141F-1802AY	MF R	18kΩ	1/4W	F	
R1254	QRV141F-3902AY	MF R	39kΩ	1/4W	F	
R1263	QRV141F-2702AY	MF R	27kΩ	1/4W	F	*
⚠ R1511	QRV141F-1692AY	MF R	16.9kΩ	1/4W	F	
⚠ R1516	QRV141F-2741AY	MF R	2.74kΩ	1/4W	F	
R1760	QRB039J-103	NETW.R	10kΩ			
R1761	QRB039J-471	NETW.R	470 Ω			*
R1762	QRB049J-103	NETW.R	10kΩ			*
R1763	QRB069J-103	NETW.R	10kΩ			*
R1764	QRB089J-103	NETW.R	10kΩ			*
CAPACITOR						
C1002	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C1003	QETN1CM-227Z	E CAP.	220 µF	16V	M	*
C1004-05	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1006	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C1007	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1008	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1010	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1020	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1041	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1043	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1050	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1052	QAT3110-100A	TRIM CAP.	10 pF			*
C1055	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1056	QETN1HM-474Z	E CAP.	0.47 µF	50V	M	*
C1059	QAT3110-200A	TRIM CAP.	20 pF			*
C1060-61	QCT25CH-120Z	C CAP.	12 pF	50V	J	*
C1062	QETN1HM-474Z	E CAP.	0.47 µF	50V	M	*
C1065	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1071	QETN1HM-336Z	E CAP.	33 µF	50V	M	*
C1101	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1103	QCT25CH-820Z	C CAP.	82 pF	50V	J	*
C1140	QETN1HM-335Z	E CAP.	3.3 µF	50V	M	*
C1142	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1143	QETN1HM-474Z	E CAP.	0.47 µF	50V	M	*
C1144	QETN1HM-335Z	E CAP.	3.3 µF	50V	M	*
C1201	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1202	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1203	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1204	QFLC1HJ-103MZ	M CAP.	0.01 µF	50V	J	*
C1205	QEN61HM-105Z	BP E CAP.	1 µF	50V	M	*
C1206	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1207	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1208	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1209	QFLC1HJ-473MZ	M CAP.	0.047 µF	50V	J	*
C1210	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C1211-13	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1214	QEN61CM-106Z	BP E CAP.	10 µF	16V	M	*
C1215	QETN1CM-105Z	E CAP.	1 µF	50V	M	*
C1217	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1219	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1220	QCT25CH-390Z	C CAP.	39 pF	50V	J	*
C1221	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1222	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*

AV-28WX1EP

⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C1223	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1224	QFLC1HJ-332MZ	M CAP.	3300 pF	50V	J	*
C1226	QCT25CH-150Z	C CAP.	15 pF	50V	J	*
C1227-28	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1229	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1230-31	QFLC1HJ-102MZ	M CAP.	1000 pF	50V	J	*
C1232	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1233	QFV71HJ-224MZ	TF CAP.	0.22 µF	50V	J	*
C1234	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1235	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1236	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1240	QFLC1HJ-103MZ	M CAP.	0.01 µF	50V	J	*
C1241	QCT25CH-820Z	C CAP.	82 pF	50V	J	*
C1242	QCT25CH-220Z	C CAP.	22 pF	50V	J	*
C1243	QCT25CH-221Z	C CAP.	220 pF	50V	J	*
C1244	QCT25CH-330Z	C CAP.	33 pF	50V	J	*
C1245	QAT3110-300A	TRIM CAP.	30 pF			*
C1246	QCT25CH-5R0Z	C CAP.	5.0 pF	50V	J	*
C1247-49	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1250	QCT25CH-101Z	C CAP.	100 pF	50V	J	*
C1301	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1401	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1501	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1502	QFLC1HJ-472MZ	M CAP.	4700 pF	50V	J	*
C1503	QFLC1HJ-222MZ	M CAP.	2200 pF	50V	J	*
C1504	QFLC1HJ-682MZ	M CAP.	6800 pF	50V	J	*
C1505	QETN2AM-106Z	E CAP.	10 µF	100V	M	*
C1506	QETN1AM-227Z	E CAP.	220 µF	10V	M	*
C1507	QFLC1HJ-122MZ	M CAP.	1200 pF	50V	J	*
C1601	QFLC1HJ-183MZ	M CAP.	0.018 µF	50V	J	*
C1602	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1603	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C1604	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1605	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C1610	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C1612	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1613	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1614-15	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1617	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C1618	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1619-20	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1621-24	QFV71HJ-684MZ	TF CAP.	0.68 µF	50V	J	*
C1625-26	QETM1EM-228	E CAP.	2200 µF	25V	M	*
C1627	QETN1CM-108Z	E CAP.	1000 µF	16V	M	*
C1701	QETN1AM-107Z	E CAP.	100 µF	10V	M	*
C1702	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1703-04	QCT25CH-150Z	C CAP.	15 pF	50V	J	*
C1705	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C1709	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1710	QETN1EM-476Z	E CAP.	47 µF	25V	M	*
C1711	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1712	QETN1HM-225Z	E CAP.	2.2 µF	50V	M	*
C1713	QETN1AM-227Z	E CAP.	220 µF	10V	M	*
C1714	QFLC1HJ-333MZ	M CAP.	0.033 µF	50V	J	*
C1715	QEB61HM-104MZ	E CAP.	0.1 µF	50V	M	*
C1716	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C1802	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
C1805-06	QCT25CH-150Z	C CAP.	15 pF	50V	J	*
C1808	QFLC1HJ-223MZ	M CAP.	0.022 µF	50V	J	*
C1810	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1811	QETN0JM-227Z	E CAP.	220 µF	6.3V	M	*
C1812	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C1813	QETN1CM-226Z	E CAP.	22 µF	16V	M	*
C1816-18	QETN1CM-106Z	E CAP.	10 µF	16V	M	*

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⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C1820	QETN1CM-476Z	E CAP.	47 μF	16V	M	*
C1821	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
C1822	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
TRANSFORMER						
T1010	CELT022-001J1	FTZ TRAP TRANSF.				*
T1050	CELT001-303	C.WAVE TRANSF.				*
T1051	CELT001-306	C.WAVE TRANSF.				*
T1201	CE41925-001	DELAY LINE				
COIL						
L1001	CELP026-221Z	PEAKING COIL	220 μH			*
L1002-03	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1020-21	CELP026-1R5Z	PEAKING COIL	1.5 μH			*
L1022	CELP026-2R2Z	PEAKING COIL	2.2 μH			*
L1040-41	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1050-53	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1070	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1071	CELP026-5R6Z	PEAKING COIL	5.6 μH			*
L1101	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1102	CELP027-120Z	PEAKING COIL	12 μH			*
L1103	CELP026-120Z	PEAKING COIL	12 μH			*
L1104	CELP026-5R6Z	PEAKING COIL	5.6 μH			*
L1201	CELP027-330Z	PEAKING COIL	33 μH			*
L1702	CELP037-5R6Z	PEAKING COIL	5.6 μH			*
L1801	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1802	CELP026-3R3Z	PEAKING COIL	3.3 μH			*
DIODE						
D1010	MTZJ10(B)-T2	ZENER DIODE				*
D1020-21	1SS85-T5	SI.DIODE				
D1050-51	1SS85-T5	SI.DIODE				
D1201	1SS133-T2	SI.DIODE				*
D1210	1SS133-T2	SI.DIODE				*
D1221-22	1SS133-T2	SI.DIODE				*
D1301-05	1SS133-T2	SI.DIODE				*
D1401-04	1SS133-T2	SI.DIODE				*
D1501	1SS133-T2	SI.DIODE				*
D1503	1SS146-T2	SI.DIODE				*
D1504	MTZJ6.8(A)-T2	ZENER DIODE				*
D1505	BYD33G-T3	SI.DIODE				*
D1506	MTZJ7.5S-T2	ZENER DIODE				
D1507	MTZJ4.3(A)-T2	ZENER DIODE				*
D1509	MTZJ6.8(A)-T2	ZENER DIODE				*
D1610-11	1SS133-T2	SI.DIODE				*
D1614	1SS133-T2	SI.DIODE				*
D1616	1SS133-T2	SI.DIODE				*
D1617	MTZJ5.1(B)-T2	ZENER DIODE				*
D1618-21	MTZJ27(B)-T2	ZENER DIODE				*
D1624	RD6.8E(B2)-T2	ZENER DIODE				
D1701	MA700-T2	SI.DIODE				*
D1702	MTZJ5.1(A)-T2	ZENER DIODE				*
D1703	1SS146-T2	SI.DIODE				*
D1704	1SS133-T2	SI.DIODE				*
D1802-03	1SS133-T2	SI.DIODE				*
TRANSISTOR						
Q1010-11	2SC5083(L-P)-T	SI.TRANSISTOR				*
Q1012-13	2SC1906-T	SI.TRANSISTOR				*
Q1020	2SC1959(Y)-T	SI.TRANSISTOR				*
Q1050-51	DTC124ES-T	DIGI.TRANSISTOR				*
Q1080	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1101	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1103	DTC124ES-T	DIGI.TRANSISTOR				*
Q1104	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1106	2PC1815(YG)-T	SI.TRANSISTOR				*

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⚠ Symbol No.	Part No.	Part Name	Description	Local
TRANSFORMER				
Q1107	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1108	DTC124ES-T	DIGI.TRANSISTOR		*
Q1109-10	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1120-24	DTC124ES-T	DIGI.TRANSISTOR		*
Q1201	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1202	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1203	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1204-05	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1206	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1207	DTC124ES-T	DIGI.TRANSISTOR		*
Q1210	DTC124ES-T	DIGI.TRANSISTOR		*
Q1211-13	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1301-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1303	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1401	2SK301(Q)-T	F.E.T.		*
Q1402	DTC144ES-T	DIGI.TRANSISTOR		*
Q1501	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1502	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1601-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1610-11	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1612-13	DTC124ES-T	DIGI.TRANSISTOR		*
Q1614	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1615-16	DTC323TS-T	DIGI.TRANSISTOR		*
Q1704-05	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1706	DTC124ES-T	DIGI.TRANSISTOR		*
Q1801-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1803	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1804	DTC124ES-T	DIGI.TRANSISTOR		*
IC				
IC1010	TA8865BN	I.C.(MONO-ANA)		
IC1201	TDA8376A	I.C.(MONO-ANA)		
IC1202	TDA4665	I.C.(MONO-ANA)		*
IC1203	TDA8395/N3	I.C.(MONO-ANA)		
IC1204	MC14538BCP	I.C.(DIGI-MOS)		
IC1205	UPC324C	I.C.(MONO-ANA)		
IC1601-02	TDA2052V	I.C.(MONO-ANA)		*
IC1701	M37270MF-060SP	I.C.		
IC1702	AT24C1628WX1EP	I.C.(EP-ROM)	(SERVICE)	
IC1703	AT24C16-10PC	I.C.(EP-ROM)		*
IC1704	L78LR05E-MA	I.C.(MONO-ANA)		*
IC1801	CF72417	I.C.(DIGI-MOS)		
IC1802	CF70206	I.C.(DIGI-MOS)		
IC1803	TC4053BP	I.C.(DIGI-MOS)		*
OTHERS				
CF1010	FTP40.40MF	CERAMIC FILTER		*
CF1011	MKT40MA100P	CERAMIC FILTER		*
CF1012	MKT40.9MA100P	CERAMIC FILTER		
CF1100	TPS5.5MW	CERAMIC FILTER		*
CF1140	CSB503F30-T2	CER.RESONATOR		*
CF1701	CST8.00MTW	CER.RESONATOR		
CN1005	CHC108N-25T-A	FFC CONNECTOR		*
⚠ CP1010	ICP-N5-Y	I.C.PROTECT		*
K1001	CE41433-001Z	BEADS CORE		*
K1701	CE41433-001Z	BEADS CORE		*
⚠ R1609	QRZ0054-470M	F R	47 Ω 1/4W J	*
S1201	QSL4A13-C03Z	LEVER SWITCH		
SF1010	CE42573-701	SAW FILTER		
SF1011	CE42574-702	SAW FILTER		
SF1012	CE42606-701	SAW FILTER		
TH1201-02	ERT-D22HL503S	N.THERMISTOR		
TU1001	CEEK471-A01	TUNER		*
X1201	CE41115-001J2	CRYSTAL		*
X1202	CE41651-001Z	CRYSTAL		*
X1801	CE41257-001	CRYSTAL		*

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POWER/DEF PW BOARD ASS'Y (SJD-2001A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
	RESISTOR					
R2421	QRV141F-2701AY	MF R	2.7kΩ	1/4W	F	*
R2425	QRG019J-221S	OM R	220 Ω	1W	J	*
R2515-16	QRG029J-272	OM R	2.7kΩ	2W	J	
R2524	QRF074K-3R3	UNF R	3.3 Ω	7W	K	*
R2529	QRG039J-270A	OM R	27 Ω	3W	J	*
R2530	QRG029J-103	OM R	10kΩ	2W	J	*
⚠ R2555	QRX029J-1R5	MF R	1.5 Ω	2W	J	*
⚠ R2556	QRX029J-1R8	MF R	1.8 Ω	2W	J	*
R2902	QRF104K-3R9	UNF R	3.9 Ω	1/10W	K	*
R2911	QRG039J-393	OM R	39kΩ	3W	J	
R2912	QRG039J-473	OM R	47kΩ	3W	J	*
R2914	QRM059J-R22	MP R	0.22 Ω	5W	J	
R2951	QRF074J-102	UNF R	1kΩ	7W	J	*
R2953	QRX039J-6R8	MF R	6.8 Ω	3W	J	
R2954	QRG029J-270	OM R	27 Ω	2W	J	*
R2956	QRG029J-123	OM R	12kΩ	2W	J	*
⚠ R2991	QRZ0057-825	C R	8.2MΩ	1W	J	*
	CAPACITOR					
C2422	QFV71HJ-474MZ	TF CAP.	0.47μF	50V	J	*
C2423	QFLC2AJ-823MZ	M CAP.	0.082μF	100V	J	*
C2424	QFLC2AJ-563MZ	M CAP.	0.056μF	100V	J	*
C2425	QFLC2AJ-393MZ	M CAP.	0.039μF	100V	J	*
C2429	QFV71HJ-474MZ	TF CAP.	0.47μF	50V	J	*
C2454	QFLC1HK-823MZ	M CAP.	0.082μF	50V	K	*
C2455	QFLC2AJ-103MZ	M CAP.	0.01μF	100V	J	*
C2456-57	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C2513	QETN2CM-105Z	E CAP.	1μF	160V	M	*
⚠ C2521	QFZ0122-132S	MPP CAP.	1300pF	1.8kVH	±3%	
⚠ C2522	QFZ0117-1202S	MPP CAP.	0.012μF	1.4kVH	±2.5%	*
⚠ C2523	QFP32GJ-223M	PP CAP.	0.022μF	400V	J	
⚠ C2524	QFM72DK-683M	M CAP.	0.068μF	200V	K	*
⚠ C2527	QFZ0119-354S	MPP CAP.	0.35μF	200V	±3%	*
C2528	QETC2CM-475Z	E CAP.	4.7μF	160V	M	*
C2529	QFZ0128-393S	MPP CAP.	0.039μF			
⚠ C2530	QFZ0119-224S	MPP CAP.	0.22μF	200V	±3%	
⚠ C2531	QFZ0119-104S	MPP CAP.	0.1μF	200V	±3%	
C2533	QETM2CM-227	E CAP.	220μF	160V	M	*
C2541	QETN1AM-107Z	E CAP.	100μF	10V	M	*
C2542	QETN1EM-476Z	E CAP.	47μF	25V	M	*
C2545	QEZ0195-475MZ	E CAP.	4.7μF	50V		
C2546	QFLC1HJ-104MZ	M CAP.	0.1μF	50V	J	*
C2551	QEN61HM-105Z	BP E CAP.	1μF	50V	M	*
C2555	QETN2EM-106Z	E CAP.	10μF	250V	M	*
C2556	QETN1EM-108Z	E CAP.	1000μF	25V	M	*
C2557	QETC1JM-107Z	E CAP.	100μF	63V	M	*
C2559	QETN1CM-108Z	E CAP.	1000μF	16V	M	*
C2583	QETC0JM-107Z	E CAP.	100μF	6.3V	M	*
C2584	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C2903	QFZ9040-473N	MM CAP.	0.047μF			*
⚠ C2905	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
⚠ C2906	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
⚠ C2907	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
C2909	QEZ0167-227M	E CAP.	220μF	385V		*
C2911	QCZ0122-391A	C CAP.	390pF	2000V	K	*
C2913	QETN1EM-107Z	E CAP.	100μF	25V	M	*
C2915	QCZ0122-271A	C CAP.	270pF	2000V	K	*
C2918	QETN1EM-227Z	E CAP.	220μF	25V	M	*
C2919	QFLC1HJ-104MZ	M CAP.	0.1μF	50V	J	*
C2920	QFLC1HJ-102MZ	M CAP.	1000pF	50V	J	*
C2923	QETN1HM-105Z	E CAP.	1μF	50V	M	*

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⚠ Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR					
C2924	QFLC1HJ-102MZ	M CAP.	1000pF	50V	J	*
C2951	QEZ0203-227	E CAP.	220μF	160V		
C2952	QETN1EM-108Z	E CAP.	1000μF	25V	M	*
C2956	QEN61CM-106Z	BP E CAP.	10μF	16V	M	*
C2963	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C2964	QETN1AM-228Z	E CAP.	2200μF	10V	M	*
C2965	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C2966	QETN1AM-227Z	E CAP.	220μF	10V	M	*
C2973	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C2974	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C2975	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C2978	QETN1AM-228Z	E CAP.	2200μF	10V	M	*
C2981	QETN1EM-227Z	E CAP.	220μF	25V	M	*
C2982	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C2984	QETN1HM-106Z	E CAP.	10μF	50V	M	*
⚠ C2992	QCZ9041-471A	C CAP.	470pF	AC400V	M	*
⚠ C2993	QCZ9041-332A	C CAP.	3300pF	AC400V	M	*
	TRANSFORMER					
T2511	CE42034-002	H.DRIVE TRANSF.				*
⚠ T2551	CETH014-00AJ1	H.V.TRANSF	(SERVICE)			
⚠ T2911	CETS066-001J4	SWITCH.TRANSF.				*
⚠ T2981	QQT0147-001	POWER TRANSF.				*
	COIL					
L2421	CELC901-024J6	HEATER CHOKE				*
L2521	CELL011-002J1	LINEARITY COIL				*
L2522	CE42693-001J1	CHOKE COIL				*
L2541	CE42691-001J1	INJECTION COIL				*
L2551	CELC901-038J6	HEATER CHOKE				*
L2911	CELC005-2R5J7	CHOKE COIL				*
L2951	CELC901-046J6	HEATER CHOKE				*
L2953-54	CELC057-1R0Z	CHOKE COIL				*
	DIODE					
D2421	MTZJ33(B)-T2	ZENER DIODE				*
D2422	MTZJ24(B)-T2	ZENER DIODE				*
D2451-52	1SS133-T2	SI.DIODE				*
D2453	RD62E(B)-T2	ZENER DIODE				
D2454	MTZJ24(B)-T2	ZENER DIODE				*
D2455	MTZJ33(B)-T2	ZENER DIODE				*
D2456	1SR124-400A-T2	SI.DIODE				*
⚠ D2511	1SS81-T5	SI.DIODE				
D2521-22	BY228-20	SI.DIODE				*
D2523	BYW95B-20	SI.DIODE				*
D2524	BYD33G-T3	SI.DIODE				*
D2541	MTZJ6.8(C)-T2	ZENER DIODE				*
D2542	1SS133-T2	SI.DIODE				*
D2550-51	BYD33G-T3	SI.DIODE				*
D2552	BYW95B-20	SI.DIODE				*
D2553	BYD33D-T3	SI.DIODE				*
D2554	BYW95B-20	SI.DIODE				*
D2555	MTZJ15(A)-T2	ZENER DIODE				*
D2556	BYD33G-T3	SI.DIODE				*
D2581	MTZJ33(B)-T2	ZENER DIODE				*
D2582-84	1SS133-T2	SI.DIODE				*
D2586	MTZJ7.5(B)-T2	ZENER DIODE				*
D2588	MTZJ15(B)-T2	ZENER DIODE				*
D2901	D3SBA60	DIODE BRIDGE				*
D2911	BYD33M-T3	SI.DIODE				*
D2912	BYD33D-T3	SI.DIODE				*
D2914	1SR124-400A-T2	SI.DIODE				*
D2951	BYW95C-20	SI.DIODE				*
D2952	BYW95B-20	SI.DIODE				*
D2953-54	FML-G12S	SI.DIODE				

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⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
	D2956	BYD33M-T3	SI.DIODE				*
	D2957	MTZJ9.1(C)-T2	ZENER DIODE				*
	D2962-63	1SS133-T2	SI.DIODE				*
	D2965	1SS133-T2	SI.DIODE				*
	D2968	MTZJ5.6(A)-T2	ZENER DIODE				
	D2978-79	1SS133-T2	SI.DIODE				*
	D2981-84	1N4003-T2	SI.DIODE				*
	D2985	MTZJ8.2(B)-T2	ZENER DIODE				*
	D2986-87	1SS133-T2	SI.DIODE				*
	TRANSISTOR						
	Q2511	BSN274	F.E.T.				*
⚠	Q2521	2SD2553-LB	SI.TRANSISTOR	H.OUT			
	Q2535	DTC124ES-T	DIGI.TRANSISTOR				*
	Q2536	IRF620	F.E.T.				
	Q2537	DTC124ES-T	DIGI.TRANSISTOR				*
	Q2538	IRF620	F.E.T.				
	Q2539	DTC124ES-T	DIGI.TRANSISTOR				*
	Q2540	IRF620	F.E.T.				
	Q2541	2SD1408(OY)-LB	SI.TRANSISTOR				
	Q2551	DTA144ES-T	DIGI.TRANSISTOR				*
	Q2552	DTC144ES-T	DIGI.TRANSISTOR				*
	Q2582	2SA949(Y)C1-T	SI.TRANSISTOR				*
	Q2583	DTC144ES-T	DIGI.TRANSISTOR				*
	Q2911	MTA4N60E	F.E.T.				*
	Q2971	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q2976	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q2977	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q2979	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q2980	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q2981	2SC2655(Y)-T	SI.TRANSISTOR				*
	Q2982	2PC1815(YG)-T	SI.TRANSISTOR				*
	IC						
	IC2421	TDA8351/N6	I.C.(MONO-ANA)				*
	IC2541	UPC4558C	I.C.(MONO-ANA)				
	IC2911	MC44603P	I.C.(MONO-ANA)				*
	IC2951	KIA7808PI	I.C.(MONO-ANA)				*
	IC2952	KIA7805PI	I.C.(MONO-ANA)				*
	IC2953	SE135N	I.C.(HYBRID)				*
	OTHERS						
⚠	FR2552	QRH027K-R82M	F R	0.82 Ω	2W	K	*
⚠	FR2553	QRH017J-120M	F R	12 Ω	1W	J	*
⚠	FR2554	QRZ0054-4R7M	F R	4.7 Ω	1/4W	J	*
	K2911	CE42050-001Z	CORE				*
	K2913	CE42050-001Z	CORE				*
	K2951	CE41433-001Z	BEADS CORE				*
	K2952	CE42050-001Z	CORE				*
	PC2536-37	TLP621(B)	I.C.(PH.COUPLER)				
⚠	PC2912	TLP721F(D4-GR)	PHOTO COUPLER				*
⚠	RY2981	CESK028-002	RELAY				*
⚠	TH2901	CEKP002-003	W.P.THERMISTOR				*

AV-28WX1EP

CRT SOCKET PW BOARD ASS'Y (SJD-3001A-U2)

⚠	Symbol No.	Part No.	Part Name	Description			Local
	VARIABLE RESISTOR						
	R3107	QVPE805-302H	V R(G CUT OFF)	3kΩ B			*
	R3108	QVPE805-302H	V R(R CUT OFF)	3kΩ B			*
	R3109	QVPE805-302H	V R(B CUT OFF)	3kΩ B			*
	RESISTOR						
	R3116-21	QRG029J-153A	OM R	15kΩ	2W	J	*
	R3318	QRD149J-100S	C R	10 Ω	1/4W	J	*
	R3329	QRG029J-391A	OM R	390 Ω	2W	J	*
	CAPACITOR						
	C3104	QETN1CM-107Z	E CAP.	100μF	16V	M	*
	C3105	QETN1CM-476Z	E CAP.	47μF	16V	M	*
	C3106	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
	C3107	QETN1CM-106Z	E CAP.	10μF	16V	M	*
	C3113	QCZ0121-102A	C CAP.	1000pF	16V	M	*
	C3114	QETM2EM-336	E CAP.	33μF	250V	M	*
	C3301	QETN1HM-106Z	E CAP.	10μF	50V	M	*
	C3304	QFLC1HJ-103MZ	M CAP.	0.01μF	50V	J	*
	C3305	QETN1HM-335Z	E CAP.	3.3μF	50V	M	*
	C3306	QETN1CM-107Z	E CAP.	100μF	16V	M	*
	C3308	QETN2CM-106Z	E CAP.	10μF	160V	M	
	C3310	QETN2CM-106Z	E CAP.	10μF	160V	M	
	C3314	QETN1CM-107Z	E CAP.	100μF	16V	M	*
	C3316	QETN1AM-107Z	E CAP.	100μF	10V	M	*
	C3317	QETN1CM-337Z	E CAP.	330μF	16V	M	*
	COIL						
	L3101-03	CELP026-181Z	PEAKING COIL	180μH			*
	L3302	CELP026-150Z	PEAKING COIL	15μH			*
	DIODE						
	D3151	1SS133-T2	SI.DIODE				*
	D3156-58	1SS133-T2	SI.DIODE				*
	D3301	1SS133-T2	SI.DIODE				*
	D3302-03	RH1S-T3	SI.DIODE				*
	TRANSISTOR						
	Q3101-03	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3104-06	2SC4544-C1	SI.TRANSISTOR				*
	Q3153	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3154	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q3301	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3302	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q3303	2SC1906-T	SI.TRANSISTOR				*
	Q3304-05	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3306	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q3307	2SA1837	SI.TRANSISTOR				
	Q3308	2SC4793	SI.TRANSISTOR				
	OTHERS						
⚠	FR3330	QRH017J-561M	F R	560 Ω	1W	J	*
	K3301-04	CE41492-001Z	CHOKE COIL				
⚠	SK3001	CE42535-001J1	CRT SOCKET				*

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FRONT CONTROL PW BOARD ASS'Y (SJD-8001A-U2)

⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C8003	QETN1HM-106Z	E CAP.	10 µF 50V M	*
C8004	QCZ0120-104MZ	C CAP.	0.1 µF 25V Z	*
C8005	QETN1CM-476Z	E CAP.	47 µF 16V M	*
⚠ C8901	QFZ9040-474N	MF CAP.	0.47 µF	*
COIL				
L8001	CE41832-001	LEAD CORE		*
L8002-03	CELP017-5R6Y	PEAKING COIL	5.6 µH	*
L8010-11	CELP017-270Y	PEAKING COIL	27 µH	*
L8012	CE41832-001	LEAD CORE		*
DIODE				
D8007	P1201	C.D.S.		*
D8008	1SS133-T2	SI.DIODE		*
D8009	SLR-342MG-T16	L.E.D.(GRN)		*
D8010	SPR-39MVWF	L.E.D.		*
D8011	1SS133-T2	SI.DIODE		*
D8012	SLR-342DU-T16	L.E.D.(ORG)		*
D8013	SLR-342YY-T16	L.E.D.(YLW)		*
D8014	MTZJ6.8(A)-T2	ZENER DIODE		*
TRANSISTOR				
Q8001	2PC1815(YG)-T	SI.TRANSISTOR		*
Q8002	DTC144ES-T	DIGI.TRANSISTOR		*
Q8003-04	DTA144ES-T	DIGI.TRANSISTOR		*
IC				
IC8001	TFMS5380ESN	IFR DETECT UNIT		
OTHERS				
	CM36548-001-E	LED HOLDER		*
	CM35921-004-H	CDS HOLDER		*
CN8005	CHC108N-25T-A	FFC CONNECTOR		*
⚠ F8901	QMF51D2-3R15J1	FUSE	3.15A	*
J8001	QMS3004-C01	HEADPHONE JACK		*
J8002	CEMN087-001	PIN JACK		*
⚠ LF8901	CELF012-001J7	LINE FILTER		*
S8001	QSP1A11-C18Z	PUSH SWITCH	INSTALL	*
S8002	QSP1A11-C18Z	PUSH SWITCH	CH▽(DOWN)	*
S8003	QSP1A11-C18Z	PUSH SWITCH	CH△(UP)	*
S8004	QSP1A11-C18Z	PUSH SWITCH	VOL(-)	*
S8005	QSP1A11-C18Z	PUSH SWITCH	VOL(+)	*
⚠ S8901	QSP4K21-C01	PUSH SWITCH	MAIN POWER	*

DOLBY PW BOARD ASS'Y (SJB0D001A(U))

⚠ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0109	QRD149J-4R7S	C R	4.7 Ω 1/4W J	
R0120-21	QRD149J-4R7S	C R	4.7 Ω 1/4W J	
R0901	QRG029J-470A	OM R	47 Ω 2W J	
R0904	QRD149J-121S	C R	120 Ω 1/4W J	
CAPACITOR				
C0101	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0102	NCT03CH-680AY	CHIP CAP.	68 p F 1600V H	
C0103	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0104	NCB21HK-473AY	CHIP CAP.	0.047 µF 50V K	
C0105	NCB21HK-223AY	CHIP CAP.	0.022 µF 50V K	
C0106	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	
C0107	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0108	NCB21HK-473AY	CHIP CAP.	0.047 µF 50V K	

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⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0109	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0110	NCT03CH-680AY	CHIP CAP.	68 p F 1600V H	
C0111	NCB21HK-473AY	CHIP CAP.	0.047 µF 50V K	
C0112-14	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0115	NCB21HK-473AY	CHIP CAP.	0.047 µF 50V K	
C0116	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF	
C0117	NCB21HK-103AY	CHIP CAP.	0.01 µF 50V K	
C0118	QETN1AM-227Z	E CAP.	220 µF 10V M	
C0119	NCB21EK-563AY	CHIP CAP.	0.056 µF 25V K	
C0120	QETN1AM-227Z	E CAP.	220 µF 10V M	
C0122-23	NCT03CH-100AY	CHIP CAP.	10 p F 1600V H	
C0124	NCB21HK-103AY	CHIP CAP.	0.01 µF 50V K	
C0125	QETN1AM-227Z	E CAP.	220 µF 10V M	
C0126	NCB21HK-103AY	CHIP CAP.	0.01 µF 50V K	
C0127	QETN1AM-227Z	E CAP.	220 µF 10V M	
C0128	NCB21HK-103AY	CHIP CAP.	0.01 µF 50V K	
C0130	NCF21CZ-105AY	CER.CAPACITOR-M	1 µF	
C0131-32	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0133-34	QFLC1HK-102MZ	M CAP.	1000 p F 50V K	
C0135	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0136	NCF21CZ-105AY	CER.CAPACITOR-M	1 µF 16V Z	
C0137	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0138-39	QFLC1HK-102MZ	M CAP.	1000 p F 50V K	
C0140-42	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0151	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0201-02	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0203-04	NCT03CH-470AY	CHIP CAP.	47 p F 1600V H	
C0205	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0206	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0251-52	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0253-54	NCT03CH-470AY	CHIP CAP.	47 p F 1600V H	
C0255	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0256	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0304-05	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0401	QETN1CM-226Z	E CAP.	22 µF 16V M	
C0402	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0403-04	NCB21HK-272AY	CHIP CAP.	2700 p F 50V K	
C0405-06	QETN1HM-225Z	E CAP.	2.2 µF 50V M	
C0407-10	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF	
C0412	QETN1CM-107Z	E CAP.	100 µF 16V M	
C0431	QETN1CM-226Z	E CAP.	22 µF 16V M	
C0433-34	NCB21HK-272AY	CHIP CAP.	2700 p F 50V K	
C0435	QETN1HM-225Z	E CAP.	2.2 µF 50V M	
C0436-39	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF	
C0453	QETN1HM-225Z	E CAP.	2.2 µF 50V M	
C0501-02	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0503-04	NCT03CH-100AY	CHIP CAP.	10 p F 1600V H	
C0505	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0507-08	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0531	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0532	NCT03CH-100AY	CHIP CAP.	10 p F 1600V H	
C0536	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0551	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0553	NCT03CH-100AY	CHIP CAP.	10 p F 1600V H	
C0555	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0556	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0557-58	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0601-04	QETN1HM-106Z	E CAP.	10 µF 50V M	
C0605	QETN1CM-107Z	E CAP.	100 µF 16V M	
C0606	QETN1CM-476Z	E CAP.	47 µF 16V M	
C0607	QETN1CM-107Z	E CAP.	100 µF 16V M	
C0701-05	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	
C0901-04	QETN1CM-107Z	E CAP.	100 µF 16V M	
C0905-06	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF	

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⚠ Symbol No.	Part No.	Part Name	Description	Local
C O I L				
L0001-02	CE40344-4R7YL	INDUCTOR		
L0701-05	CELP026-100Z	PEAKING COIL	10 µH	
L0706	CE41832-001	LEAD CORE		
D I O D E				
D0104	MA141WK-X	SI.DIODE		
D0201	MA3062-X	ZENER DIODE		
D0501-02	MA3150(M)-X	ZENER DIODE		
D0503	MA3056-X	ZENER DIODE		
D0532	MA3150(M)-X	ZENER DIODE		
D0552	MA3150(M)-X	ZENER DIODE		
T R A N S I S T O R				
Q0201	DTC144EK-X	DIGI.TRANSISTOR		
Q0202-03	2SA1037K(QR)-X	SI.TRANSISTOR		
Q0301-02	DTC144EK-X	DIGI.TRANSISTOR		
Q0501	2SA1162(YG)-X	SI.TRANSISTOR		
Q0502-03	DTC323TK-X	DIGI.TRANSISTOR		
Q0531	2SA1162(YG)-X	SI.TRANSISTOR		
Q0532	DTC323TK-X	DIGI.TRANSISTOR		
Q0551	2SA1162(YG)-X	SI.TRANSISTOR		
Q0552-53	DTC323TK-X	DIGI.TRANSISTOR		
Q0601	2SK105(E)-T	F.E.T.		
Q0602	2SC2655(Y)-T	SI.TRANSISTOR		
I C				
IC0101	SAA7366T-X	I.C.(MONO-ANA)		
IC0102	M37471M8-349SP	I.C.(MICRO-COMP)		
IC0103	MN1382-Q-X	I.C.(MONO-ANA)		
IC0104	TC9332F-010	I.C.(DIGI-MOS)		
IC0105	TC7W74F-X	I.C.(ECL-LOGIC)		
IC0106	TMS57002DPHA	I.C.(MICRO-PROC)		
IC0108-09	TDA1386T-X	I.C.(MONO-ANA)		
IC0111	BA4558F-W	I.C.(MONO-ANA)		
IC0201	BA4558F-W	I.C.(MONO-ANA)		
IC0251	BA4558F-W	I.C.(MONO-ANA)		
IC0301-02	TC4052BF-W	I.C.(DIGI-MOS)		
IC0401	TDA7315D	I.C.(DIGI-OTHER)		
IC0411	AN78L09-Y	I.C.(MONO-ANA)		
IC0431	TDA7315D	I.C.(DIGI-OTHER)		
IC0501	BA4558F-W	I.C.(MONO-ANA)		
IC0551	BA4558F-W	I.C.(MONO-ANA)		
IC0901-02	AN78L05-Y	I.C.(MONO-ANA)		
O T H E R S				
⚠ CP0601	ICP-N10-Y	I.C.PROTECT		
J0001	CEMN036-004	PIN JACK		
J0002	CEMN061-001	PIN JACK		
X0101	CST8.00MT	CER.RESONATOR		
X0102	CE42533-001	CRYSTAL		

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AV SEL. & MSP PW BOARD ASS'Y (SJD0S001A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
R E S I S T O R						
R0104	QRG019J-101S	OM R	100 Ω	1W	J	*
R0206	QRG019J-101S	OM R	100 Ω	1W	J	*
R0612-13	QRB049J-473	NETW.R	4.7kΩ			*
C A P A C I T O R						
C0101	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0102	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0103	QETN1CM-227Z	E CAP.	220 µF	16V	M	*
C0104	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0105-08	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0115-16	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0117-18	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C0201	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0202	QFLC1HK-103MZ	M CAP.	0.01 µF	50V	K	*
C0203-04	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0206	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0207-08	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0215-16	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0217-18	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C0301	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0304-05	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0401	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0402	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0403	QEN61CM-106Z	BP E CAP.	10 µF	16V	M	*
C0404	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0405	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0521	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0601-02	QCT25CH-2R0Z	C CAP.	2.0 pF	50V	J	*
C0605-06	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0607-08	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0610	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0613	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0614-15	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0616	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0617-18	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0635-36	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0637	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0638-39	QEN61HM-105Z	BP E CAP.	1 µF	50V	M	*
C0641	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0643	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0645-48	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0650	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C O I L						
L0101-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
L0105	CE41832-001	LEAD CORE				*
L0201-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
L0205	CE41832-001	LEAD CORE				*
L0504	CELP027-180Z	PEAKING COIL	18 µH			*
L0505	CELP027-220Z	PEAKING COIL	22 µH			*
L0606	CELC005-2R5J7	CHOKE COIL				*
L0607	CELP026-100Z	PEAKING COIL	10 µH			*
L0608	CELC005-2R5J7	CHOKE COIL				*
D I O D E						
D0101	MTZJ5.1(A)-T2	ZENER DIODE				*
D0201	MTZJ4.7(A)-T2	ZENER DIODE				*
D0301	MTZJ13(B)-T2	ZENER DIODE				*
D0304-05	MTZJ13(B)-T2	ZENER DIODE				*
D0401-02	MTZJ13(B)-T2	ZENER DIODE				*
D0403	MTZJ10(A)-T2	ZENER DIODE				*

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⚠ Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q0101-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0103-04	DTC323TS-T	DIGI.TRANSISTOR		*
Q0105	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0201	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0202	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0203-04	DTC323TS-T	DIGI.TRANSISTOR		*
Q0401-03	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0503-04	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0601	DTC144ES-T	DIGI.TRANSISTOR		*
Q0602	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0603	DTC323TS-T	DIGI.TRANSISTOR		*
IC				
IC0401	TEA6416	I.C.(MONO-ANA)		*
IC0601	MSP3410B-PP-F7	I.C.(DIGI-OTHER)		*
IC0602	BA4558	I.C.(MONO-ANA)		*
IC0603	TC4052BP	I.C.(DIGI-MOS)		*
OTHERS				
J0001-02	CE40529-009J1	21 PIN SOCKET		*
⚠ R0403	QRZ0054-470M	F R	47 Ω 1/4W J	*
X0601	CE42546-001	CRYSTAL		*

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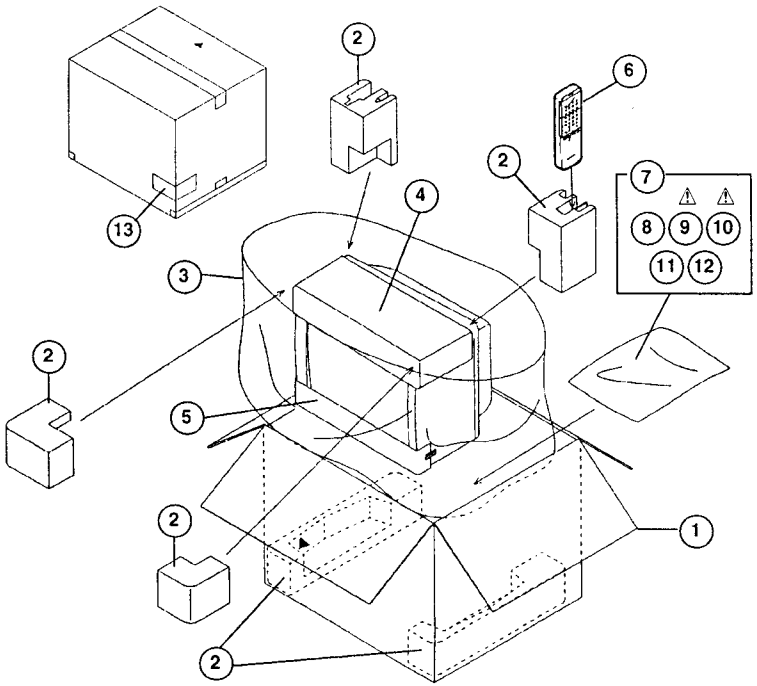
PACKING



PACKING PARTS LIST

⚠ Ref.No.	Part No.	Part Name	Description	Local
1	AEM1002-044-E	PACKING CASE	(EURO BOX)	*
2	CP11547-00B-E	CUSHION ASSY	6pcs in 1set	*
3	AEM1004-006-E	SET COVER		*
4	CP40193-009-E	CUSHION SHEET		*
5	CP40193-010-E	CUSHION SHEET		*
6	RM-C782-1E	REMOCON UNIT		*
7	AEM3021-001-E	POLY BAG		*
8	2832WX1EP-HSAE	S.DIAGRAM		*
⚠ 9	CQ40224-001-E	INST BOOK	For GBR/GER/FRA/NED/ITA/ESP	*
⚠ 10	CQ40225-001-E	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
11	BT-20066A-E	ADDRESS CARD	(1295)	*
12	CM22966-004-E	DEC.SHEET		*
13	AEM1038-023-E	EURO LABEL		*

EXPLODED VIEW PARTS LIST

AV-32WX1EP

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	1	CELD062-001J2	DEG COIL	L01	*
⚠	2	W76ESF031X14	CRT(1TC)	V01(Inc.DY,PC MAGNET,WED.)	*
	3	CHGB0018-0A-N	BRAIDED ASSY		
	4	CHGB0025-0A	BRAIDED SUB ASSY	(×2)	*
⚠	5	CELD904-001	ROTATION COIL	L03	*
	6	CM36311-001	KNOB CAP		
	7	CM12799-A04	CONTROL BASE		
	8	CHFB125-12BD	FFC WIRE		*
⚠	9	CETH015-00AJ1	H.V.TRANSF.	(SERVICE)T2551	
	10	CM23076-B01-E	HVT HOLDER		*
	11	CM12800-A02-KD	CHASSIS BASE		
	12	CHGY0017-0A-YS	ANTENNA CABLE		*
	13	CM12813-B01-E	AV TERM BOARD		*
	14	CE42112-002	PALJ CONNECTOR		
	15	SBSB3012M	TAPPING SCREW	For AV TERM BOARD	
⚠	16	AEEMP001-185	POWER CORD		*
⚠	17	CM46618-A01-E	POWER CORD CLAMP		*
⚠	18	CM12737-003-KD	REAR COVER		
	19	GBSA4016N	TAPPING SCREW	(×13)For REAR COVER	*
⚠	20	CM23048-002-E	RATING LABEL	For GBR/GER/ITA	*
⚠	21	CM23049-002-E	RATING LABEL	For GBR/FRA/ESP	*
	100	CM12587-B0J-KD	FRONT CABI.ASSY	Inc.No.101～111	
	101	CM35865-00E	INSULATOR(R)	(SERVICE)	
	102	CM35865-00F	INSULATOR(L)	(SERVICE)	
	103	CM36223-001	LED LENS		
	104	CM36172-00A-S	SP NET ASSY	(×2)	
	105	CM30861-069	SPRING		
	106	CM36225-001	POWER KNOB		
	107	CM48125-001	JVC MARK		
	108	CM48229-00A	DOOR LATCH		
	109	CM36224-A11	OPERATION SHEET		
	110	CM22898-006	DOOR	(SERVICE)	
	111	CM48076-A01	CDS WINDOW		
	200	CM12878-A01-E	DOME BOX	(×2)	
	201	CEBSF10P-04KJ6	SPEAKER(WO)	(×2)SP01,SP02	*
	202	2528MXSP-SWE	DOME SP ASSY	(×2)Inc.No.203,204	*
	203	CEBSS03K-01KJ2	SPEAKER	(×2)	*
	204	CHGS0057-0A-N	S.P WIRE ASSY	(×2)	*

EXPLODED VIEW

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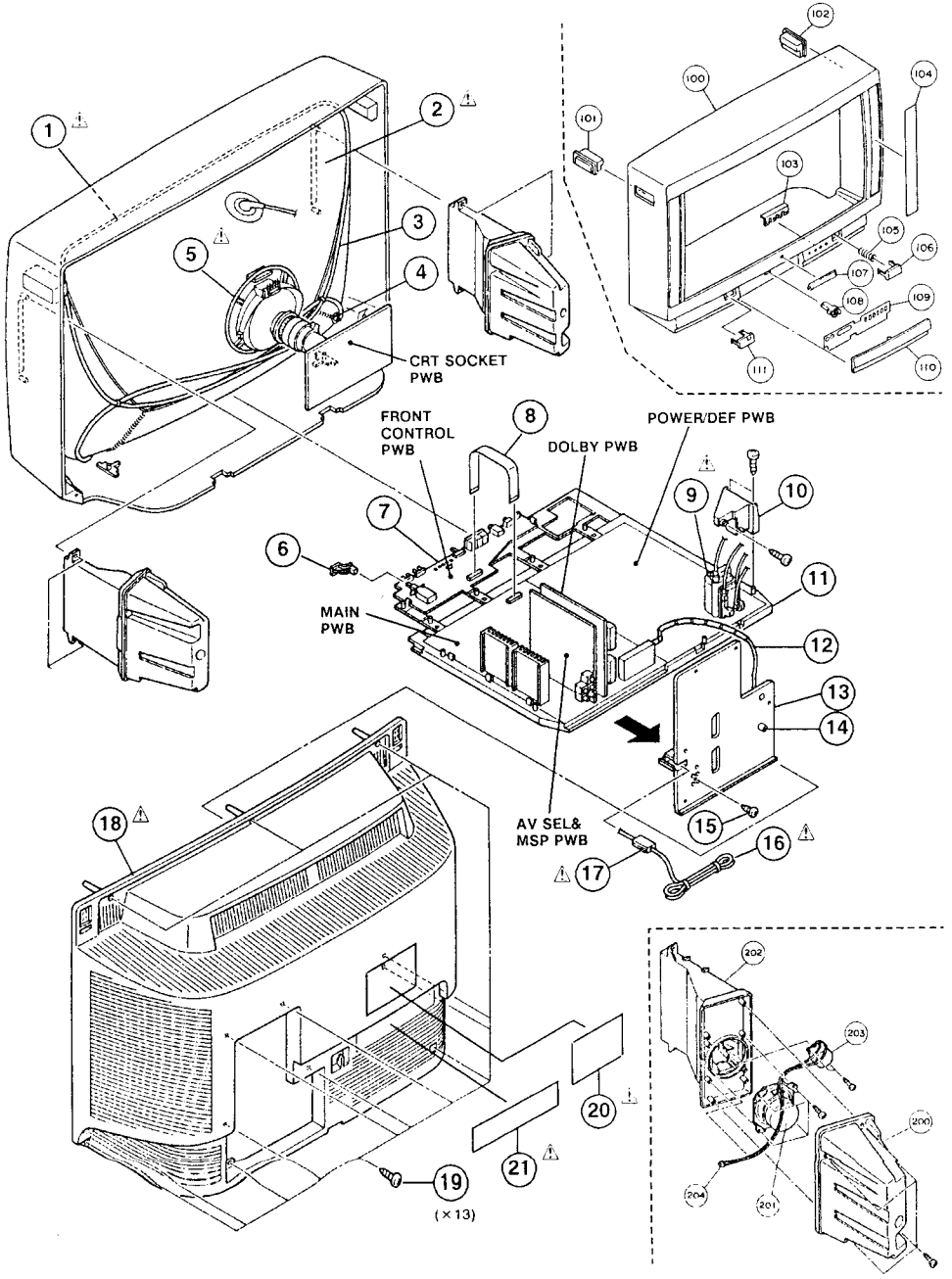

PRINTED WIRING BOARD PARTS LIST

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MAIN PW BOARD ASS'Y (SJD-1002A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
	VARIABLE RESISTOR					
R1055	QVPE611-202HZ	V R(L V LEVEL)	2kΩ B			
	RESISTOR					
R1250-51	QRV141F-1502AY	MF R	15kΩ	1/4W	F	
R1252	QRV141F-4702AY	MF R	47kΩ	1/4W	F	
R1253	QRV141F-1802AY	MF R	18kΩ	1/4W	F	
R1254	QRV141F-4702AY	MF R	47kΩ	1/4W	F	
R1263	QRV141F-2702AY	MF R	27kΩ	1/4W	F	
⚠ R1511	QRV141F-1502AY	MF R	15kΩ	1/4W	F	
⚠ R1516	QRV141F-2211AY	MF R	2.21kΩ	1/4W	F	
R1760	QRB039J-103	NETW.R	10kΩ			
R1761	QRB039J-471	NETW.R	470 Ω			
R1762	QRB049J-103	NETW.R	10kΩ			
R1763	QRB069J-103	NETW.R	10kΩ			*
R1764	QRB089J-103	NETW.R	10kΩ			*
	CAPACITOR					
C1002	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1003	QETN1CM-227Z	E CAP.	220μF	16V	M	*
C1004-05	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1006	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1007	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1008	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1010	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1020	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1041	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1043	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1050	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1052	QAT3110-100A	TRIM CAP.	10pF			
C1055	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1056	QETN1HM-474Z	E CAP.	0.47μF	50V	M	*
C1059	QAT3110-200A	TRIM CAP.	20pF			*
C1060-61	QCT25CH-120Z	C CAP.	12pF	50V	J	*
C1062	QETN1HM-474Z	E CAP.	0.47μF	50V	M	*
C1065	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1071	QETN1HM-336Z	E CAP.	33μF	50V	M	
C1101	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1103	QCT25CH-820Z	C CAP.	82pF	50V	J	*
C1140	QETN1HM-335Z	E CAP.	3.3μF	50V	M	*
C1142	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1143	QETN1HM-474Z	E CAP.	0.47μF	50V	M	*
C1144	QETN1HM-335Z	E CAP.	3.3μF	50V	M	*
C1201	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1202	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1203	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1204	QFLC1HJ-103MZ	M CAP.	0.01μF	50V	J	*
C1205	QEN61HM-105Z	BP E CAP.	1μF	50V	M	*
C1206	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1207	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1208	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1209	QFLC1HJ-473MZ	M CAP.	0.047μF	50V	J	*
C1210	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1211-13	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1214	QEN61CM-106Z	BP E CAP.	10μF	16V	M	*
C1217	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1219	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1220	QCT25CH-390Z	C CAP.	39pF	50V	J	*
[illegible]	[illegible]	C CAP.	0.1μF	25V	Z	*
C1222	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1223	QETN1CM-107Z	E CAP.	100μF	16V	M	*

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⚠ Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR					
C1224	QFLC1HJ-332MZ	M CAP.	3300pF	50V	J	*
C1226	QCT25CH-150Z	C CAP.	15pF	50V	J	*
C1227-28	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1229	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1230-31	QFLC1HJ-102MZ	M CAP.	1000pF	50V	J	*
C1232	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1233	QFV71HJ-224MZ	TF CAP.	0.22μF	50V	J	*
C1234	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1235	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1236	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1240	QFLC1HJ-103MZ	M CAP.	0.01μF	50V	J	*
C1241	QCT25CH-820Z	C CAP.	82pF	50V	J	*
C1242	QCT25CH-220Z	C CAP.	22pF	50V	J	*
C1243	QCT25CH-221Z	C CAP.	220pF	50V	J	*
C1244	QCT25CH-330Z	C CAP.	33pF	50V	J	*
C1245	QAT3110-300A	TRIM CAP.	30pF			
C1246	QCT25CH-5R0Z	C CAP.	5.0pF	50V	J	*
C1247-49	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1250	QCT25CH-101Z	C CAP.	100pF	50V	J	*
C1301	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1401	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1501	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1502	QFLC1HJ-472MZ	M CAP.	4700pF	50V	J	*
C1503	QFLC1HJ-222MZ	M CAP.	2200pF	50V	J	*
C1504	QFLC1HJ-682MZ	M CAP.	6800pF	50V	J	*
C1505	QETN2AM-106Z	E CAP.	10μF	100V	M	*
C1506	QETN1AM-227Z	E CAP.	220μF	10V	M	*
C1507	QFLC1HJ-122MZ	M CAP.	1200pF	50V	J	*
C1601	QFLC1HJ-183MZ	M CAP.	0.018μF	50V	J	*
C1602	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1603	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1604	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1605	QETN1CM-477Z	E CAP.	470μF	16V	M	*
C1610	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C1612	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1613	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1614-15	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1617	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C1618	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1619-20	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1621-24	QFV71HJ-684MZ	TF CAP.	0.68μF	50V	J	*
C1625-26	QETM1EM-228	E CAP.	2200μF	25V	M	*
C1627	QETN1CM-108Z	E CAP.	1000μF	16V	M	*
C1701	QETN1AM-107Z	E CAP.	100μF	10V	M	*
C1702	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1703-04	QCT25CH-150Z	C CAP.	15pF	50V	J	*
C1705	QETN1CM-107Z	E CAP.	100μF	16V	M	*
C1709	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1710	QETN1EM-476Z	E CAP.	47μF	25V	M	*
C1711	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1712	QETN1HM-225Z	E CAP.	2.2μF	50V	M	*
C1713	QETN1AM-227Z	E CAP.	220μF	10V	M	*
C1714	QFLC1HJ-333MZ	M CAP.	0.033μF	50V	J	*
C1715	QEB61HM-104MZ	E CAP.	0.1μF	50V	M	*
C1716	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1802	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1805-06	QCT25CH-150Z	C CAP.	15pF	50V	J	*
C1808	QFLC1HJ-223MZ	M CAP.	0.022μF	50V	J	*
C1810	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1811	QETN0JM-227Z	E CAP.	220μF	6.3V	M	*
C1812	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C1813	QETN1CM-226Z	E CAP.	22μF	16V	M	*
C1816-18	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C1820	QETN1CM-476Z	E CAP.	47μF	16V	M	*

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⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C1821	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
C1822	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
TRANSFORMER						
T1010	CELT022-001J1	FTZ TRAP TRANSF.				*
T1050	CELT001-303	C.WAVE TRANSF.				*
T1051	CELT001-306	C.WAVE TRANSF.				*
T1201	CE41925-001	DELAY LINE				
COIL						
L1001	CELP026-221Z	PEAKING COIL	220 μH			*
L1002-03	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1020-21	CELP026-1R5Z	PEAKING COIL	1.5 μH			*
L1022	CELP026-2R2Z	PEAKING COIL	2.2 μH			*
L1040-41	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1050-53	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1070	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1071	CELP026-5R6Z	PEAKING COIL	5.6 μH			*
L1101	CELP026-8R2Z	PEAKING COIL	8.2 μH			*
L1102	CELP027-120Z	PEAKING COIL	12 μH			*
L1103	CELP026-120Z	PEAKING COIL	12 μH			*
L1104	CELP026-5R6Z	PEAKING COIL	5.6 μH			*
L1201	CELP027-330Z	PEAKING COIL	33 μH			*
L1702	CELP037-5R6Z	PEAKING COIL	5.6 μH			*
L1801	CELP026-4R7Z	PEAKING COIL	4.7 μH			*
L1802	CELP026-3R3Z	PEAKING COIL	3.3 μH			*
DIODE						
D1010	MTZJ10(B)-T2	ZENER DIODE				*
D1020-21	1SS85-T5	SI.DIODE				
D1050-51	1SS85-T5	SI.DIODE				
D1201	1SS133-T2	SI.DIODE				*
D1210	1SS133-T2	SI.DIODE				*
D1221-22	1SS133-T2	SI.DIODE				*
D1301-05	1SS133-T2	SI.DIODE				*
D1401-04	1SS133-T2	SI.DIODE				*
D1501	1SS133-T2	SI.DIODE				*
D1503	1SS146-T2	SI.DIODE				*
D1504	MTZJ6.8(A)-T2	ZENER DIODE				*
D1505	BYD33G-T3	SI.DIODE				
D1506	MTZJ7.5S-T2	ZENER DIODE				
D1507	MTZJ4.3(A)-T2	ZENER DIODE				*
D1509	MTZJ6.8(A)-T2	ZENER DIODE				*
D1610-11	1SS133-T2	SI.DIODE				*
D1614	1SS133-T2	SI.DIODE				*
D1616	1SS133-T2	SI.DIODE				*
D1617	MTZJ5.1(B)-T2	ZENER DIODE				*
D1618-21	MTZJ27(B)-T2	ZENER DIODE				*
D1701	MA700-T2	SI.DIODE				*
D1702	MTZJ5.1(A)-T2	ZENER DIODE				*
D1703	1SS146-T2	SI.DIODE				*
D1704	1SS133-T2	SI.DIODE				*
D1802-03	1SS133-T2	SI.DIODE				*
TRANSISTOR						
Q1010-11	2SC5083(L-P)-T	SI.TRANSISTOR				*
Q1012-13	2SC1906-T	SI.TRANSISTOR				*
Q1020	2SC1959(Y)-T	SI.TRANSISTOR				*
Q1050-51	DTC124ES-T	DIGI.TRANSISTOR				*
Q1080	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1101	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1102	2PA1015(YG)-T	SI.TRANSISTOR				*
Q1103	DTC124ES-T	DIGI.TRANSISTOR				*
Q1104	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1106	2PC1815(YG)-T	SI.TRANSISTOR				*
Q1107	2PA1015(YG)-T	SI.TRANSISTOR				*

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⚠ Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q1108	DTC124ES-T	DIGI.TRANSISTOR		*
Q1109-10	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1120-24	DTC124ES-T	DIGI.TRANSISTOR		*
Q1201	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1202	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1203	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1204-05	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1206	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1207	DTC124ES-T	DIGI.TRANSISTOR		*
Q1210	DTC124ES-T	DIGI.TRANSISTOR		*
Q1211-13	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1301-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1303	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1401	2SK301(Q)-T	F.E.T.		*
Q1402	DTC144ES-T	DIGI.TRANSISTOR		*
Q1501	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1502	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1601-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1610-11	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1612-13	DTC124ES-T	DIGI.TRANSISTOR		*
Q1614	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1615-16	DTC323TS-T	DIGI.TRANSISTOR		*
Q1704-05	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1706	DTC124ES-T	DIGI.TRANSISTOR		*
Q1801-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q1803	2PA1015(YG)-T	SI.TRANSISTOR		*
Q1804	DTC124ES-T	DIGI.TRANSISTOR		*
IC				
IC1010	TA8865BN	I.C.(MONO-ANA)		*
IC1201	TDA8376A	I.C.(MONO-ANA)		
IC1202	TDA4665	I.C.(MONO-ANA)		
IC1203	TDA8395/N3	I.C.(MONO-ANA)		*
IC1204	MC14538BCP	I.C.(DIGI-MOS)		
IC1205	UPC324C	I.C.(MONO-ANA)		
IC1601-02	TDA2052V	I.C.(MONO-ANA)		
IC1701	M37270MF-060SP	I.C.		*
IC1702	AT24C1628WX1EP	I.C.(EP-ROM)	(SERVICE)	*
IC1703	AT24C16-10PC	I.C.(EP-ROM)		*
IC1704	L78LR05E-MA	I.C.(MONO-ANA)		*
IC1801	CF72417	I.C.(DIGI-MOS)		
IC1802	CF70206	I.C.(DIGI-MOS)		
IC1803	TC4053BP	I.C.(DIGI-MOS)		*
OTHERS				
CF1010	FTP40.40MF	CERAMIC FILTER		
CF1011	MKT40MA100P	CERAMIC FILTER		*
CF1012	MKT40.9MA100P	CERAMIC FILTER		*
CF1100	TPS5.5MW	CERAMIC FILTER		
CF1140	CSB503F30-T2	CER.RESONATOR		*
CF1701	CST8.00MTW	CER.RESONATOR		*
CN1005	CHC108N-25T-AE	FFC CONNECTOR		*
⚠ CP1010	ICP-N5-Y	I.C.PROTECT		*
K1001	CE41433-001Z	BEADS CORE		
K1701	CE41433-001Z	BEADS CORE		*
⚠ R1609	QRZ0054-470M	F.R		*
S1201	QSL4A13-C03Z	LEVER SWITCH	47 Ω 1/4W J	*
SF1010	CE42573-701	SAW FILTER		
SF1011	CE42574-702	SAW FILTER		
SF1012	CE42606-701	SAW FILTER		
TH1201-02	ERT-D2ZHL503S	N.THERMISTOR		
TU1001	CEEK471-A01	TUNER		
X1201	CE41115-001J2	CRYSTAL		*
X1202	CE41651-001Z	CRYSTAL		*
X1601	CE41257-001	CRYSTAL		*

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POWER/DEF PW BOARD ASS'Y (SJD-2002A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
RESISTOR						
R2421	QRV141F-2201AY	MF R	2.2kΩ	1/4W	F	*
R2425	QRG019J-221S	OM R	220 Ω	1W	J	*
R2515-16	QRG029J-272	OM R	2.7kΩ	2W	J	
R2524	QRF074K-3R3	UNF R	3.3 Ω	7W	K	*
R2529	QRG039J-270A	OM R	27 Ω	3W	J	*
R2530	QRG029J-103	OM R	10kΩ	2W	J	*
⚠ R2555	QRX029J-1R2	MF R	1.2 Ω	2W	J	
⚠ R2556	QRX029J-1R8	MF R	1.8 Ω	2W	J	*
R2562	QRC122K-103	COMP.R	10kΩ	1/2W	K	
R2902	QRF104K-3R9	UNF R	3.9 Ω	1/10W	K	*
R2911	QRG039J-393	OM R	39kΩ	3W	J	
R2912	QRG039J-473	OM R	47kΩ	3W	J	*
R2914	QRM059J-R22	MP R	0.22 Ω	5W	J	
R2951	QRF074J-102	UNF R	1kΩ	7W	J	*
R2953	QRX039J-6R8	MF R	6.8 Ω	3W	J	
R2954	QRG029J-270	OM R	27 Ω	2W	J	*
R2956	QRG029J-123	OM R	12kΩ	2W	J	*
⚠ R2991	QRZ0057-825	C R	8.2MΩ	1W	J	*
CAPACITOR						
C2422	QFV71HJ-474MZ	TF CAP.	0.47μF	50V	J	*
C2423	QFLC2AJ-823MZ	M CAP.	0.082μF	100V	J	*
C2424	QFLC2AJ-563MZ	M CAP.	0.056μF	100V	J	*
C2425	QFLC2AJ-393MZ	M CAP.	0.039μF	100V	J	*
C2429	QFV71HJ-474MZ	TF CAP.	0.47μF	50V	J	*
C2454	QFLC1HK-823MZ	M CAP.	0.082μF	50V	K	*
C2455	QFLC2AJ-103MZ	M CAP.	0.01μF	100V	J	*
C2456-57	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C2513	QETN2CM-105Z	E CAP.	1μF	160V	M	*
⚠ C2521	QFZ0122-302S	MPP CAP.	0.03μF			
⚠ C2522	QFZ0117-1002S	MPP CAP.	0.01μF	1.4kVH	±2.5%	
⚠ C2523	QFP32GJ-273M	PP CAP.	0.027μF	400V	J	
⚠ C2524	QFM72DK-104M	M CAP.	0.1μF	200V	K	*
⚠ C2526	QFZ0119-684S	MPP CAP.	0.68μF	200V	±3%	*
⚠ C2527	QFZ0119-684S	MPP CAP.	0.68μF	200V	±3%	*
C2528	QETC2CM-475Z	E CAP.	4.7μF	160V	M	*
C2529	QFZ0128-393S	MPP CAP.	0.039μF			*
⚠ C2530	QFZ0119-304S	MPP CAP.	0.3μF	200V	±3%	
⚠ C2531	QFZ0119-204S	MPP CAP.	0.2μF	200V	±3%	
C2533	QETM2CM-227	E CAP.	220μF	160V	M	*
C2541	QETN1AM-107Z	E CAP.	100μF	10V	M	*
C2542	QETN1EM-476Z	E CAP.	47μF	25V	M	*
C2545	QEZ0195-475MZ	E CAP.	4.7μF	50V		
C2546	QFLC1HJ-104MZ	M CAP.	0.1μF	50V	J	*
C2551	QEN61HM-105Z	BP E CAP.	1μF	50V	M	*
C2555	QETN2EM-106Z	E CAP.	10μF	250V	M	*
C2556	QETB1EM-338	E CAP.	3300μF	25V	M	*
C2557	QETC1JM-107Z	E CAP.	100μF	63V	M	*
C2559	QETN1CM-108Z	E CAP.	1000μF	16V	M	*
C2561	QCZ0122-102A	C CAP.	1000pF	2000V	K	
C2583	QETC0JM-107Z	E CAP.	100μF	6.3V	M	*
C2584	QETN1CM-476Z	E CAP.	47μF	16V	M	*
C2903	QFZ9040-473N	MM CAP.	0.047μF			*
⚠ C2905	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
⚠ C2906	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
⚠ C2907	QCZ9034-472A	C CAP.	4700pF	AC400V	P	*
C2909	QEZ0167-227M	E CAP.	220μF	385V		*
C2911	QCZ0122-391A	C CAP.	390pF	2000V	K	*
C2913	QETN1CM-107Z	E CAP.	100μF	25V	M	*
C2915	QCZ0122-271A	C CAP.	270pF	2000V	K	*
C2918	QETN1EM-227Z	E CAP.	220μF	25V	M	*

AV-32WX1EP

⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C2919	QFLC1HJ-104MZ	M CAP.	0.1μF	50V	J	*
C2920	QFLC1HJ-102MZ	M CAP.	1000pF	50V	J	*
C2923	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C2924	QFLC1HJ-102MZ	M CAP.	1000pF	50V	J	*
C2951	QEZ0203-227	E CAP.	220μF	160V		
C2952	QETN1EM-108Z	E CAP.	1000μF	25V	M	*
C2956	QEN61CM-106Z	BP E CAP.	10μF	16V	M	*
C2963	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C2964	QETN1AM-228Z	E CAP.	2200μF	10V	M	*
C2965	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
C2966	QETN1AM-227Z	E CAP.	220μF	10V	M	*
C2973	QETN1HM-475Z	E CAP.	4.7μF	50V	M	*
C2975	QETN1HM-105Z	E CAP.	1μF	50V	M	*
C2978	QETN1AM-228Z	E CAP.	2200μF	10V	M	*
C2981	QETN1EM-227Z	E CAP.	220μF	25V	M	*
C2982	QETN1HM-106Z	E CAP.	10μF	50V	M	*
C2984	QETN1HM-106Z	E CAP.	10μF	50V	M	*
⚠ C2992	QCZ9041-471A	C CAP.	470pF	AC400V	M	*
⚠ C2993	QCZ9041-332A	C CAP.	3300pF	AC400V	M	*
TRANSFORMER						
T2511	CE42034-002	H.DRIVE TRANSF.				*
T2521	CE42549-001J1	BRIGE COIL				*
⚠ T2551	CETH015-00AJ1	H.V.TRANSF.	(SERVICE)			
T2561	CE42692-001J1	DAF TRANSF.				*
⚠ T2911	CETS066-001J4	SWITCH.TRANSF.				*
⚠ T2981	QQT0147-001	POWER TRANSF.				*
COIL						
L2421	CELC901-024J6	HEATER CHOKE				*
L2521	CELL012-002J2	LINEARITY COIL				*
L2522	CE42693-001J1	CHOKE COIL				*
L2541	CE42567-001J1	INJECTION COIL				*
L2551	CELC901-093J6	HEATER CHOKE				*
L2911	CELC005-2R5J7	CHOKE COIL				*
L2951	CELC901-046J6	HEATER CHOKE				*
L2953-54	CELC057-1R0Z	CHOKE COIL				*
DIODE						
D2421	MTZJ33(B)-T2	ZENER DIODE				*
D2422	MTZJ24(B)-T2	ZENER DIODE				*
D2451-52	1SS133-T2	SI.DIODE				*
D2453	RD62E(B)-T2	ZENER DIODE				
D2454	MTZJ24(B)-T2	ZENER DIODE				*
D2455	MTZJ33(B)-T2	ZENER DIODE				*
D2511	1SS81-T5	SI.DIODE				
D2521	BY228-20	SI.DIODE				*
D2523	BYW95B-20	SI.DIODE				*
D2524	BYD33G-T3	SI.DIODE				*
D2541	MTZJ6.8(C)-T2	ZENER DIODE				*
D2542	1SS133-T2	SI.DIODE				*
D2550-51	BYD33G-T3	SI.DIODE				*
D2552	BYW95B-20	SI.DIODE				*
D2553	BYD33D-T3	SI.DIODE				*
D2554	BYW95B-20	SI.DIODE				*
D2555	MTZJ15(A)-T2	ZENER DIODE				*
D2556	BYD33G-T3	SI.DIODE				*
D2581	MTZJ33(B)-T2	ZENER DIODE				*
D2582-84	1SS133-T2	SI.DIODE				*
D2586	MTZJ7.5(B)-T2	ZENER DIODE				*
D2588	MTZJ15(B)-T2	ZENER DIODE				*
D2901	D3SBA60	DIODE BRIDGE				*
D2911	BYD33M-T3	SI.DIODE				*
D2912	BYD33D-T3	SI.DIODE				*
D2914	1SR124-400A-T2	SI.DIODE				*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	DIODE				
	D2951	BYW95C-20	SI.DIODE		*
	D2952	BYW95B-20	SI.DIODE		*
	D2953-54	FML-G12S	SI.DIODE		
	D2956	BYD33M-T3	SI.DIODE		*
	D2957	MTZJ9.1(C)-T2	ZENER DIODE		*
	D2962-63	1SS133-T2	SI.DIODE		*
	D2965	1SS133-T2	SI.DIODE		*
	D2968	MTZJ5.6(A)-T2	ZENER DIODE		
	D2981-84	1N4003-T2	SI.DIODE		*
	D2985	MTZJ8.2(B)-T2	ZENER DIODE		*
	D2986-87	1SS133-T2	SI.DIODE		*
	TRANSISTOR				
	Q2511	BSN274	F.E.T.		*
⚠	Q2521	2SD2553-LB	SI.TRANSISTOR	H.OUT	
	Q2535	DTC124ES-T	DIGI.TRANSISTOR		*
	Q2536	IRF620	F.E.T.		
	Q2537	DTC124ES-T	DIGI.TRANSISTOR		*
	Q2538	IRF620	F.E.T.		
	Q2539	DTC124ES-T	DIGI.TRANSISTOR		*
	Q2540	IRF620	F.E.T.		
	Q2541	2SD1408(OY)-LB	SI.TRANSISTOR		
	Q2551	DTA144ES-T	DIGI.TRANSISTOR		*
	Q2552	DTC144ES-T	DIGI.TRANSISTOR		*
	Q2582	2SA949(Y)C1-T	SI.TRANSISTOR		*
	Q2583	DTC144ES-T	DIGI.TRANSISTOR		*
	Q2911	MTA4N60E	F.E.T.		*
	Q2971	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q2979	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q2980	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q2981	2SC2655(Y)-T	SI.TRANSISTOR		*
	Q2982	2PC1815(YG)-T	SI.TRANSISTOR		*
	IC				
	IC2421	TDA8351/N5	I.C.(MONO-ANA)		*
	IC2541	UPC4558C	I.C.(MONO-ANA)		
	IC2911	MC44603P	I.C.(MONO-ANA)		*
	IC2951	KIA7808PI	I.C.(MONO-ANA)		*
	IC2952	KIA7805PI	I.C.(MONO-ANA)		*
	IC2953	SE135N	I.C.(HYBRID)		*
	OTHERS				
⚠	FR2552	QRH027K-R82M	F R	0.82 Ω 2W K	*
⚠	FR2553	QRH017J-180M	F R	18 Ω 1W J	*
⚠	FR2554	QRZ0054-4R7M	F R	4.7 Ω 1/4W J	*
	K2911	CE42050-001Z	CORE		*
	K2913	CE42050-001Z	CORE		*
	K2951	CE41433-001Z	BEADS CORE		*
	K2952	CE42050-001Z	CORE		*
	PC2536-37	TLP621(B)	I.C.(PH.COUPLER)		
⚠	PC2912	TLP721F(D4-GR)	PHOTO COUPLER		*
⚠	RY2981	CESK028-002	RELAY		*
⚠	TH2901	CEKP002-003	W.P.THERMISTOR		*
	VA2561	ERZV10V112C1	ZN R		*
	VA2562	CH41005-H-7.5C	F.BUS WIRE		

CRT SOCKET PW BOARD ASS'Y (SJD-3002A-U2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
	VARIABLE RESISTOR				
	R3107	QVPE805-302H	V R(G CUT OFF)	3kΩ B	*
	R3108	QVPE805-302H	V R(R CUT OFF)	3kΩ B	*
	R3109	QVPE805-302H	V R(B CUT OFF)	3kΩ B	*
	RESISTOR				
	R3116-21	QRG029J-153A	OM R	15kΩ 2W J	*
	R3318	QRD149J-100S	C R	10 Ω 1/4W J	*
	R3329	QRG029J-391A	OM R	390 Ω 2W J	*
	CAPACITOR				
	C3104	QETN1CM-107Z	E CAP.	100μF 16V M	*
	C3105	QETN1CM-476Z	E CAP.	47μF 16V M	*
	C3106	QCZ0120-104MZ	C CAP.	0.1μF 25V Z	*
	C3107	QETN1CM-106Z	E CAP.	10μF 16V M	*
	C3113	QCZ0121-102A	C CAP.	1000pF 16V M	*
	C3114	QETM2EM-336	E CAP.	33μF 250V M	*
	C3301	QETN1HM-106Z	E CAP.	10μF 50V M	*
	C3304	QFLC1HJ-103MZ	M CAP.	0.01μF 50V J	*
	C3305	QETN1HM-335Z	E CAP.	3.3μF 50V M	*
	C3306	QETN1CM-107Z	E CAP.	100μF 16V M	
	C3308	QETN2CM-106Z	E CAP.	10μF 160V M	
	C3310	QETN2CM-106Z	E CAP.	10μF 160V M	*
	C3314	QETN1CM-107Z	E CAP.	100μF 16V M	*
	C3316	QETN1AM-107Z	E CAP.	100μF 10V M	*
	C3317	QETN1CM-337Z	E CAP.	330μF 16V M	*
	COIL				*
	L3101-03	CELP026-181Z	PEAKING COIL	180μH	*
	L3302	CELP026-150Z	PEAKING COIL	15μH	
	DIODE				*
	D3151	1SS133-T2	SI.DIODE		*
	D3156-58	1SS133-T2	SI.DIODE		*
	D3301	1SS133-T2	SI.DIODE		*
	D3302-03	RH1S-T3	SI.DIODE		
	TRANSISTOR				*
	Q3101-03	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q3104-06	2SC4544-C1	SI.TRANSISTOR		*
	Q3153	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q3154	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q3301	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q3302	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q3303	2SC1906-T	SI.TRANSISTOR		
	Q3304-05	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q3306	2PA1015(YG)-T	SI.TRANSISTOR		
	Q3307	2SA1837	SI.TRANSISTOR		
	Q3308	2SC4793	SI.TRANSISTOR		
	OTHERS				
⚠	FR3330	QRH017J-561M	F R	560 Ω 1W J	*
	K3301-04	CE41492-001Z	CHOKE COIL		
⚠	SK3001	CE42670-001	CRT SOCKET		

FRONT CONTROL PW BOARD ASS'Y (SJD-8002A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C8003	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C8004	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C8005	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
⚠ C8901	QFZ9040-474N	MF CAP.	0.47 µF			*
COIL						
L8001	CE41832-001	LEAD CORE				*
L8002-03	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
L8010-11	CELP017-270Y	PEAKING COIL	27 µH			*
L8012	CE41832-001	LEAD CORE				*
DIODE						
D8007	P1201	C.D.S.				*
D8008	1SS133-T2	SI.DIODE				*
D8009	SLR-342MG-T16	L.E.D.(GRN)				*
D8010	SPR-39MVWF	L.E.D.				*
D8011	1SS133-T2	SI.DIODE				*
D8012	SLR-342DU-T16	L.E.D.(ORG)				*
D8013	SLR-342YY-T16	L.E.D.(YLW)				*
D8014	MTZJ6.8(A)-T2	ZENER DIODE				*
TRANSISTOR						
Q8001	2PC1815(YG)-T	SI.TRANSISTOR				*
Q8002	DTC144ES-T	DIGI.TRANSISTOR				*
Q8003-04	DTA144ES-T	DIGI.TRANSISTOR				*
IC						
IC8001	TFMS5380ESN	IFR DETECT UNIT				
OTHERS						
	CM36548-001-E	LED HOLDER				*
	CM35921-004-H	CDS HOLDER				
CN8005	CHC108N-25T-A	FFC CONNECTOR				*
⚠ F8901	QMF51D2-3R15J1	FUSE	3.15A			*
J8001	QMS3004-C01	HEADPHONE JACK				
J8002	CEMN087-001	PIN JACK				*
⚠ LF8901	CELF012-001J7	LINE FILTER				*
S8001	QSP1A11-C18Z	PUSH SWITCH	INSTALL			
S8002	QSP1A11-C18Z	PUSH SWITCH	CH▽(DOWN)			*
S8003	QSP1A11-C18Z	PUSH SWITCH	CH△(UP)			*
S8004	QSP1A11-C18Z	PUSH SWITCH	VOL(-)			*
S8005	QSP1A11-C18Z	PUSH SWITCH	VOL(+)			*
S8471	QSS4C23-C03	SLIDE SWITCH				
⚠ S8901	QSP4K21-C01	PUSH SWITCH	MAIN POWER			*

DOLBY PW BOARD ASS'Y (SJB0D001A(U))

⚠ Symbol No.	Part No.	Part Name	Description			Local
RESISTOR						
R0109	QRD149J-4R7S	C R	4.7 Ω	1/4W	J	
R0120-21	QRD149J-4R7S	C R	4.7 Ω	1/4W	J	
R0901	QRG029J-470A	OM R	47 Ω	2W	J	
R0904	QRD149J-121S	C R	120 Ω	1/4W	J	
CAPACITOR						
C0101	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0102	NCT03CH-680AY	CHIP CAP.	68 pF	1600V	H	
C0103	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0104	NCB21HK-473AY	CHIP CAP.	0.047 µF	50V	K	
C0105	NCB21HK-223AY	CHIP CAP.	0.022 µF	50V	K	
C0106	NCB21HK-102AY	CHIP CAP.	1000 pF	50V	K	
C0107	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0108	NCB21HK-473AY	CHIP CAP.	0.047 µF	50V	K	

⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C0109	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0110	NCT03CH-680AY	CHIP CAP.	68 pF	1600V	H	
C0111	NCB21HK-473AY	CHIP CAP.	0.047 µF	50V	K	
C0112-14	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0115	NCB21HK-473AY	CHIP CAP.	0.047 µF	50V	K	
C0116	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF			
C0117	NCB21HK-103AY	CHIP CAP.	0.01 µF	50V	K	
C0118	QETN1AM-227Z	E CAP.	220 µF	10V	M	
C0119	NCB21EK-563AY	CHIP CAP.	0.056 µF	25V	K	
C0120	QETN1AM-227Z	E CAP.	220 µF	10V	M	
C0122-23	NCT03CH-100AY	CHIP CAP.	10 pF	1600V	H	
C0124	NCB21HK-103AY	CHIP CAP.	0.01 µF	50V	K	
C0125	QETN1AM-227Z	E CAP.	220 µF	10V	M	
C0126	NCB21HK-103AY	CHIP CAP.	0.01 µF	50V	K	
C0127	QETN1AM-227Z	E CAP.	220 µF	10V	M	
C0128	NCB21HK-103AY	CHIP CAP.	0.01 µF	50V	K	
C0130	NCF21CZ-105AY	CER.CAPACITOR-M	1 µF			
C0131-32	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0133-34	QFLC1HK-102MZ	M CAP.	1000 pF	50V	K	
C0135	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0136	NCF21CZ-105AY	CER.CAPACITOR-M	1 µF	16V	Z	
C0137	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0138-39	QFLC1HK-102MZ	M CAP.	1000 pF	50V	K	
C0140-42	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0151	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0201-02	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0203-04	NCT03CH-470AY	CHIP CAP.	47 pF	1600V	H	
C0205	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0206	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0251-52	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0253-54	NCT03CH-470AY	CHIP CAP.	47 pF	1600V	H	
C0255	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0256	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0304-05	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0401	QETN1CM-226Z	E CAP.	22 µF	16V	M	
C0402	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0403-04	NCB21HK-272AY	CHIP CAP.	2700 pF	50V	K	
C0405-06	QETN1HM-225Z	E CAP.	2.2 µF	50V	M	
C0407-10	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF			
C0412	QETN1CM-107Z	E CAP.	100 µF	16V	M	
C0431	QETN1CM-226Z	E CAP.	22 µF	16V	M	
C0433-34	NCB21HK-272AY	CHIP CAP.	2700 pF	50V	K	
C0435	QETN1HM-225Z	E CAP.	2.2 µF	50V	M	
C0436-39	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF			
C0453	QETN1HM-225Z	E CAP.	2.2 µF	50V	M	
C0501-02	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0503-04	NCT03CH-100AY	CHIP CAP.	10 pF	1600V	H	
C0505	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0507-08	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0531	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0532	NCT03CH-100AY	CHIP CAP.	10 pF	1600V	H	
C0536	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0551	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0553	NCT03CH-100AY	CHIP CAP.	10 pF	1600V	H	
C0555	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0556	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0557-58	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0601-04	QETN1HM-106Z	E CAP.	10 µF	50V	M	
C0605	QETN1CM-107Z	E CAP.	100 µF	16V	M	
C0606	QETN1CM-476Z	E CAP.	47 µF	16V	M	
C0607	QETN1CM-107Z	E CAP.	100 µF	16V	M	
C0701-05	NCB21HK-222AY	CHIP CAP.	2200 pF	50V	K	

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⚠ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
C0901-04	QETN1CM-107Z	E CAP.	100 µF	16V	M	
C0905-06	NCF21EZ-104AY	CER.CAPACITOR-M	0.1 µF			
COIL						
L0001-02	CE40344-4R7YL	INDUCTOR				
L0701-05	CELP026-100Z	PEAKING COIL	10 µH			
L0706	CE41832-001	LEAD CORE				
DIODE						
D0104	MA141WK-X	SI.DIODE				
D0201	MA3062-X	ZENER DIODE				
D0501-02	MA3150(M)-X	ZENER DIODE				
D0503	MA3056-X	ZENER DIODE				
D0532	MA3150(M)-X	ZENER DIODE				
D0552	MA3150(M)-X	ZENER DIODE				
TRANSISTOR						
Q0201	DTC144EK-X	DIGI.TRANSISTOR				
Q0202-03	2SA1037K(QR)-X	SI.TRANSISTOR				
Q0301-02	DTC144EK-X	DIGI.TRANSISTOR				
Q0501	2SA1162(YG)-X	SI.TRANSISTOR				
Q0502-03	DTC323TK-X	DIGI.TRANSISTOR				
Q0531	2SA1162(YG)-X	SI.TRANSISTOR				
Q0532	DTC323TK-X	DIGI.TRANSISTOR				
Q0551	2SA1162(YG)-X	SI.TRANSISTOR				
Q0552-53	DTC323TK-X	DIGI.TRANSISTOR				
Q0601	2SK105(E)-T	F.E.T.				
Q0602	2SC2655(Y)-T	SI.TRANSISTOR				
IC						
IC0101	SAA7366T-X	I.C.(MONO-ANA)				
IC0102	M37471M8-349SP	I.C.(MICRO-COMP)				
IC0103	MN1382-Q-X	I.C.(MONO-ANA)				
IC0104	TC9332F-010	I.C.(DIGI-MOS)				
IC0105	TC7W74F-X	I.C.(ECL-LOGIC)				
IC0106	TMS57002DPHA	I.C.(MICRO-PROC)				
IC0108-09	TDA1386T-X	I.C.(MONO-ANA)				
IC0111	BA4558F-W	I.C.(MONO-ANA)				
IC0201	BA4558F-W	I.C.(MONO-ANA)				
IC0251	BA4558F-W	I.C.(MONO-ANA)				
IC0301-02	TC4052BF-W	I.C.(DIGI-MOS)				
IC0401	TDA7315D	I.C.(DIGI-OTHER)				
IC0411	AN78L09-Y	I.C.(MONO-ANA)				
IC0431	TDA7315D	I.C.(DIGI-OTHER)				
IC0501	BA4558F-W	I.C.(MONO-ANA)				
IC0551	BA4558F-W	I.C.(MONO-ANA)				
IC0901-02	AN78L05-Y	I.C.(MONO-ANA)				
OTHERS						
⚠ CP0601	ICP-N10-Y	I.C.PROTECT				
J0001	CEMN036-004	PIN JACK				
J0002	CEMN061-001	PIN JACK				
X0101	CST8.00MT	CER.RESONATOR				
X0102	CE42533-001	CRYSTAL				

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AV SEL. & MSP PW BOARD ASS'Y (SJD0S001A-U2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
RESISTOR						
R0104	QRG019J-101S	OM R	100 Ω	1W	J	*
R0206	QRG019J-101S	OM R	100 Ω	1W	J	*
R0612-13	QRB049J-473	NETW.R	4.7kΩ			*
CAPACITOR						
C0101	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0102	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0103	QETN1CM-227Z	E CAP.	220 µF	16V	M	*
C0104	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0105-08	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0115-16	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0117-18	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C0201	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0202	QFLC1HK-103MZ	M CAP.	0.01 µF	50V	K	*
C0203-04	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0206	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0207-08	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0215-16	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0217-18	QETN1HM-106Z	E CAP.	10 µF	50V	M	*
C0301	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0304-05	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0401	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0402	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0403	QEN61CM-106Z	BP E CAP.	10 µF	16V	M	*
C0404	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
C0405	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0521	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0601-02	QCT25CH-2R0Z	C CAP.	2.0 pF	50V	J	*
C0605-06	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0607-08	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0610	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0613	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0614-15	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0616	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
C0617-18	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
C0635-36	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0637	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0638-39	QEN61HM-105Z	BP E CAP.	1 µF	50V	M	*
C0641	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
C0643	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
C0645-48	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
C0650	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
COIL						
L0101-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
L0105	CE41832-001	LEAD CORE				*
L0201-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
L0205	CE41832-001	LEAD CORE				*
L0504	CELP027-180Z	PEAKING COIL	18 µH			*
L0505	CELP027-220Z	PEAKING COIL	22 µH			*
L0606	CELC005-2R5J7	CHOKE COIL				*
L0607	CELP026-100Z	PEAKING COIL	10 µH			*
L0608	CELC005-2R5J7	CHOKE COIL				*
DIODE						
D0101	MTZJ5.1(A)-T2	ZENER DIODE				*
D0201	MTZJ4.7(A)-T2	ZENER DIODE				*
D0301	MTZJ13(B)-T2	ZENER DIODE				*
D0304-05	MTZJ13(B)-T2	ZENER DIODE				*
D0401-02	MTZJ13(B)-T2	ZENER DIODE				*
D0403	MTZJ10(A)-T2	ZENER DIODE				*

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⚠ Symbol No.	Part No.	Part Name	Description	Local
TRANSISTOR				
Q0101-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0103-04	DTC323TS-T	DIGI.TRANSISTOR		*
TRANSISTOR				
Q0105	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0201	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0202	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0203-04	DTC323TS-T	DIGI.TRANSISTOR		*
Q0401-03	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0503-04	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0601	DTC144ES-T	DIGI.TRANSISTOR		*
Q0602	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0603	DTC323TS-T	DIGI.TRANSISTOR		*
IC				
IC0401	TEA6416	I.C.(MONO-ANA)		*
IC0601	MSP3410B-PP-F7	I.C.(DIGI-OTHER)		*
IC0602	BA4558	I.C.(MONO-ANA)		*
IC0603	TC4052BP	I.C.(DIGI-MOS)		*
OTHERS				
J0001-02	CE40529-009J1	21 PIN SOCKET		*
⚠ R0403	QRZ0054-470M	F R	47 Ω 1/4W J	*
X0601	CE42546-001	CRYSTAL		*

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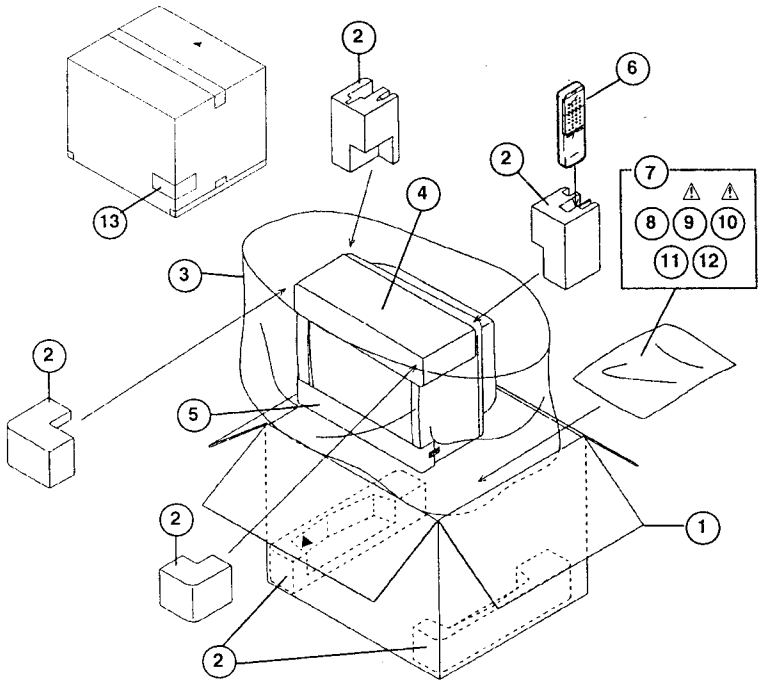
PACKING



PACKING PARTS LIST

⚠ Ref.No.	Part No.	Part Name	Description	Local
1	AEM1002-043-E	PACKING CASE	(EURO BOX)	*
2	CP11549-00B-E	CUSHION ASSY	6pcs in 1set	*
3	AEM1004-007-E	POLY.BAG		*
4	AEM3022-003-E	CUSHION SHEET		*
5	CP40193-010-E	CUSHION SHEET		*
6	RM-C782-1E	REMOCON UNIT		*
7	AEM3021-001-E	POLY BAG		*
8	2832WX1EP-HSAE	S.DIAGRAM		*
⚠ 9	CQ40224-001-E	INST BOOK	For GBR/GER/FRA/NED/ITA/ESP	*
⚠ 10	CQ40225-001-E	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
11	BT-20066A-E	ADDRESS CARD	(1295)	*
12	CM22966-005-E	DEC.SHEET		*
13	AEM1038-025-E	EURO LABEL		*